

### **DISCLOSURES DOCKET**

Law Department - Patent Section Philip Morris Management Corp. Privileged and Confidential

12 April 1991

#### (NET) PROCESS FOR EXPANDING TOBACCO

F. V. Utsch

Physical Research

A method for expanding tobacco by subjecting the tobacco to an inert gas at a pressure of from 200 to 1000 PSIG, cooling the pressurized tobacco to a temperature below -30 degrees F then depressurizing and rapidly heating the tobacco to provide expansion of the tobacco.

Glenn	
9-8-89	Reactivated per Friedmanadditional data being prepared.
3-1-90	Follow-up inquiry to FriedmanUtsch will gather existing data and send it to us.
1-91	Utsch says infor will be ready by end of March.

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#### PM 1291

(Filter Technology) CIGARETTE FILTER TREATMENT

A. G. Kallianos, W. E. Claflin, W. A. Nichols Cigarette Technology

A process to modify the selectivity of polypropylene (FML) or other non-CA filters to closely or substantially approximate that of cellulose acetate filters for cigarette smoke components.

See also 1359

Schardt/F&N/Hintz

#### 1-5-88 Disclosure file opened. 2-1-88 Disclosure to F&N for review. 4-12-88 Prior art patents received--forwarded to inventors for review. 6-7-88 Follow-up to inventors: have you reviewed yet? 6-13-88 Kallianos says inventors feel more work is needed before proceeding--note to Hubbard to that effect. 1-11-89 Letter to Hintz: 1359 and this case similar-discuss with Lee to see that these cases are coordinated. 11-9-89 Letter from Hintz: reviewed with PM 1359--proceed with separate cases. He is waiting for us to advise re our letter of 6-13-88. 1-11-90 Discussed with Kallianos--he will check status and advise. 3-1-90 Follow-up inquiry to Kallianos. 2-18-91 Status inquiry: Kallianos to review work with T. Callaham and Tim will advise on how to proceed.

#### (Delta) SMOKING ARTICLE

C. Goldsmith, H. Lanzillotti, C. Lilly, E. Grollimund, J. Ehrman

A smoking article that produces no visible sidestream smoke in which at least the carbon heat source and the tobacco flavor producing elements can be ejected from a reusable body of the smoking article.

#### Schardt/F&N/Panichi

Disclosure received (4 drawings handed to JES by Lanzillotti); faxed to F&N (WEB).
1st draft receivedto inventors for review.
Draft sent to Goldsmith by Kennard for review.
Redraft received.
Meeting with Kennard to review application.
3rd draft received; handed to inventors for review.
Meeting with Kennard and Lanzillotti to finalize application.
Revised application receivedforwarded to inventors for review.
Waiting for arrangements to be made for Goldsmith to sign.
Letter to C. Smith: signatures out of date-will have to start oversend new forms.
Application sent to Ehrman for signature.

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#### PM 1334 CIP

#### METHODS AND APPARATUS FOR OPTICALLY DETERMINING THE ACCEPTABILITY OF PRODUCTS

K. A. Cox, R. J. Maher, H. Dante, and C. Harward Physical Research

Improvements on global inspection.

#### Related to PM 1514 and 1523

#### Glenn/F&N/Jackson

(141)

7-24-89	Memo from Cox describing improvementsforwarded to F&N for consideration.	
11-15-89	1st draft receivedto inventors for review.	
2-20-90	Called Cox to check statusthey have not yet completed their review but will try to do so in the near	
	future.	
5-24-90	Checked status with Kenexpects to have this back to us next week.	
8-29-90	Additional information sent to Jackson.	
9-19-90	Meeting with Jackson/Inventors.	
11-30-90	Draft to inventors for review.	
4-10-91	Draft approvedJackson to send papers for execution.	

(Sigma/Delta) APPARATUS FOR ASSEMBLYING A MULTI-PART SMOKING ARTICLE (ROTARY/LINEAR TABLE)

R. H. Dickerson, D. L. Brookman, E. C. Grollimund Engineering

A multi-station apparatus that is used for the construction of non-combustion smoking articles which in a first embodiment may comprise two interacting rotary tables and in a second embodiment may comprise a single linear table.

#### Glenn/F&N/Pisano

Clemy cery isano		
11-10-88 Kennard here to see equipment.		
11-15-88		
12-29-88		
	and the Swanson-Erie people.	
6-26-89	Kennard met with inventors to finalize application.	
7-12-89	Drawings of generator tube station forwarded to Kennard.	
8-3-89		
8-8-89 Additional drawings received and forwarded to Kennard.		
5-9-90	1st draft receivedto inventors for review.	
6-18-90	Dickerson's comments received.	
7-6-90 Meeting with inventors/Pisano to review draft.		
9-11-90	90 Revised draft receivedto inventors for review.	
10-23-90	Meeting with inventors/Pisano to review draft.	
11-27-90	Revised draft received.	
12-14-90	Draft claims to inventors for review.	
12-28-90	12-28-90 Dickerson's comments to Pisano.	
2-20-91	DeBlasio's comments to Pisano.	

#### (Sigma) IMPROVED METHODS FOR MAKING METAL CARBIDE HEAT SOURCES

S. C. Deevi, M. R. Hajaligol, M. L. Watkins, and H. V. Lanzillotti Physical Research

Improved method for making a heat source comprising metal carbides are provided, the metal carbides heat sources have ignition temperatures that are substantially lower than conventional carbon particles normally used in carbonaceous heat sources, while at the same time provide sufficient heat to release a flavored aerosol, from a flavor bed for inhalation by the smoker. Upon combustion, the heat source produces substantially no carbon monoxide. The metal carbide is prepared by pre-forming the metal species/carbon source starting materials into a shape, and converting them to metal carbide in situ, without substantially altering the shape of the starting materials.

#### Schardt/F&N/Gross/Radulescu

Schardyran/Grossykadulescu		
2-7-89 Disclosure file opened.		
3-3-89	3-3-89 Disclosure to F&N for application preparation.	
3-7-89	3-7-89 Letter from C. Smith: assigned to Hintz.	
5-17-89	In-house search results forwarded to Hintz.	
8-21-89	Checked status with F&N: being combined with PM 1336draft application close to completion.	
8-31-89	Meeting with Boyer and Deeviprobably should not be combined with PM 1336Boyer re-	
	evaluating.	
11-10-89	Meeting with Deevi and Boyer to review application; additional info handed to Boyer.	
12-11-89	Additional info faxed to Boyer.	
1-3-90 Additional info faxed to Boyer.		
1-29-90 1st draft receivedto inventors for review.		
3-9-90 Meeting with Boyer and Deevi to review draft.		
4-12-90 2nd draft receivedto Deevi for review.		
6-22-90	Memo from Deeviexpects to have review of draft completed by July 6.	
10-5-90	Revised application to Deevi.	
10-15-90	Meeting with Deevi/Loring/Boyer to review draft.	
1-8-91		
2-15-91	Meeting with Gross/Radulescu/Hajaligol.	
2-26-91	Deevi's comments on draft sent to Gross.	

WATER OR ALCOHOL SOLUBLE INORGANIC POLYMERIC OXIDE GEL ADHESIVES FOR CIGARETTE. PAPER PREPARED VIA THE SOL-GEL PROCESS

A. G. Kallianos, K. R. Hansen, and A. C. Lilly. Cigarette Technology

#### Schardt/F&N/Hintz

2-7-89	Disclosure file opened.
3-3-89	Disclosure to F&N for application preparation.
3-7-89	Letter from C. Smith: assigned to Hintz.
3-15-89	In-house search results forwarded to Hintz.
12-1-89	Memo from Friedman: trials successfulKallianos needs to discuss with JES.
3-1-90	Follow-up inquiry to Kallianos.
5-30-90	Status inquiry from F&N.
7-3-90	PM 1364 combined herewithF&N to proceed.
1-22-91	Status inquiry to C. Smith.

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(Project ART - Water Column) COUNTERCURRENT WATER ABSORBER FOR EXTRACTION OF NICOTINE FROM SUPERCRITICAL CARBON DIOXIDE

J. M. Dobbs and T. M. Howell Physical Research

A process for extracting nicotine from tobacco using a supercritical solvent includes absorption of the nicotine from the supercritical solvent using substantially pure water.

See also PM 1267 and 1268:

#### Glenn/F&N/Krasnow

2-7-89	Disclosure file opened.	
3-3-89	Disclosure to F&N for application preparation.	
8-16-89	In-house patent search results to Kearney.	
11-2-89	Kearney discussed by phone with JESto be discussed with Dobbs when he returns late November.	
11-16-89	Meeting with Kearney and inventors to review disclosure.	
2-7-90	References forwarded to Kearneyart close.	
7-5-90	Additional information forwarded to Kearney.	
9-11-90	Krasnow called to schedule meeting.	
10-16-90	Letter to Krasnow transmitting memo to file re-phone conference with Dobbs; Krasnow instructed to review the EP patent for PM 1267 CIP A with regard to this case; we want to proceed with application preparation.	
10-25-90	Meeting with Krasnow/inventors.	
12-3-90	1st draft receivedto inventors for review.	
3-6-91	Inventors still reviewing 1st draft.	

#### METHODS AND APPARATUS FOR OPTICALLY INSPECTING CYLINDRICAL PRODUCTS

D. A. Lowitz

Physical Research

#### Schardt/F&N/Jackson

10-11-88	Disclosure receivedlogged in as D456; acknowledgment sent.	
11-11-88	R&D patent meeting: file.	
11-21-88	Disclosure to F&N for search and evaluation.	
2-21-89	1st draft receivedto inventor for review.	
3-7-89	Jackson met with Lowitz to review draft.	
7-21-89	Letter to Jackson: put on holdLowitz doing additional work.	
12-7-89	Memo from Friedman: work continues on analysis part of application.	
3-1-90	Follow-up inquiry to Friedmanwork still not completed on "interface" part of application. F&N instructed to put on <i>hold</i> until further notice.	
10-17-90	Memo from Friedman: inactivate; letter to F&N: is there enough data to file on what we have?	
10-26-90	Revised application receivedto Lowitz for final review.	
2-18-91	Status inquiry: Lowitz did not receive draft sent to him October 26another copy given to him.	

#### (Sigma) A COMPOSITE HEAT SOURCE COMPRISING METAL CARBIDE AND METAL NITRIDE

S. C. Deevi, M. R. Hajaligol, D. S. Kellogg, J. M. Campbell, B. E. Waymack, K. Houghton Physical Research

A heat source comprising a mixture of metal carbide and metal nitride, particularly useful in smoking articles, is provided. The metal carbide/metal nitride mixture making up the heat source have ignition temperatures that are substantially lower than conventional carbon particles normally used in carbonaceous heat sources, while at the same time provide sufficient heat to release a flavored aerosol from a flavor bed for inhalation by the smoker. Upon combustion the heat source produces substantially no carbon monoxide or nitrogen oxides:

#### Schardt/F&N/Gross/Radulescu

4-11-89	Disclosure file opened; per JES Houghton is also an inventor; disclosure forwarded to F&N for application preparationHIGH PRIORITY.
5-3-89	Deevi's notes forwarded to Hintz.
6-22-89	Meeting with Deevi and Boyer to review disclosure.
8-21-89	Checked status with F&N: draft almost ready.
8-31-89	Meeting with Boyer and Deevi to review draft.
11-3-89	Meeting with Boyer and Deevi to review draft.
11-10-89	Meeting with Boyer and Deevi.
12-12-89	Additional info forwarded to Boyer.
3-9-90	Meeting with Boyer and Deevi to review 1st draft.
3-22-90	2nd draft received-to Deevi for review.
5-2-90	3rd draft received—to Deevi for review.
6-11-90	Meeting with Boyer/Deevi.
10-5-90	Revised application to Deevi.
10-15-90	Meeting with Loring/Boyer/Deevi to review draft.
1-8-91	Meeting with Loring/Gross/Deevi.
1-17-91	Revised draft forwarded to Deevi for review.
2-15-91	Meeting with Gross/Radulescu/Hajaligol; waiting for example from Deevi.
4-4-91	Revised draft sent to Deevi for review.

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METHOD OF APPLYING LARGE QUANTITIES OF MATERIAL TO TOBACCO FILLER WITHOUT ADDING A SOLVENT

Susan E. Wrenn Tobacco Materials

#### Glenn/F&N/Gross/Radulescu

4-19-89	Disclosure file opened; disclosure to F&N for application preparation and search if necessary.	
4-25-89	Letter from C. Smith: novelty search underway.	
6-22-89	Meeting with Wrenn and Boyer to review disclosure.	
6-23-89	Preliminary in-house search completedforwarded to Boyer.	
8-4-89	Checked with Wrenntests not ready yetcheck again after Labor Day.	
9-28-89	Memo to Wrenn: data available yet?	
12-5-89	Letter from Boyer: on hold pending receipt of data.	
7-2-90	On hold until tests can be scheduled.	
3-6-91	Being reviewed by involved personnel to determine status.	

#### PM 1363

USE OF MONOALCOHOL ITACONATES AS FLAVOR RELEASE AGENTS

#### H. J. Grubbs and R. R. Izac

Chemical Research

#### Schardt/Depaoli

4-19-89	Disclosure file opened combining D508, D509, and D510; disclosures forwarded to Depaoli for
	application preparation.
6-8-89	Patent Office search results received from Depaoli.
6-13-89	Search forwarded to inventors for review.
3-1-90	Follow-up inquiry to inventors.
2-18-91	Status inquiry: Grubbs reviewing file.

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#### - PM 1366

(Paper Technology) CALENDERED AND LAMINATED PAPER WEB FOR A CIGARETTE WRAPPER AND METHOD OF ADHERING TWO PAPER WEBS TOGETHER TO MAKE A DOUBLE WRAPPED CIGARETTE

#### R. Newsome

Cigarette Technology

#### See also D401

Glenn	/F&N	/Gross
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4-25-89	Disclosure file opened; pursue patent coverage per R&D management.
7-25-89	Disclosure to F&N for application preparation.
7-28-89	Letter from C. Smith: additional information and search needed.
10-6-89	Memo to Newsome: additional information needed.
3-1-90	Follow-up inquiry to Reggie.
5-7-90	Meeting with Boyer/Newsome to determine what else is needed.
7-9-90	In house search results forwarded to F&N.
7-31-90	Letter from Boyer requesting drawings.
8-13-90	Reggie tried to contact Boyer, who is on vacation until 8-20; he will try again then.
10-10-90	D401 forwarded to Boyer for resolution of inventorship question.
2-19-91	Status inquiry: patentability being studied by Gross who will discuss case with inventor soon.
2-25-91	Prior art reviewedunlikely to patentable over prior art.

#### LOW DENSITY TOBACCO RODS AND A METHOD FOR PRODUCING THE SAME

W. Winterson, T. Clarke, P. Martin, and W. Nichols Tobacco Fundamentals

A tobacco product characterized by improved void volume and firmness characteristics and a method of making a tobacco product by applying binder material to tobacco filler, treating the filler to the extent necessary to cause the filler to become substantially non-tacky, forming a rod, activating the binder and treating the rod to the extent necessary to cause the filler shreds to become bonded to one another.

#### Schardt/F&N/Gross

5-3-89	Disclosure file opened (was D413). Reviewed at April 18 R&D patent meetingrecommendation
	was to pursue patent coverage.
5-16-89	Disclosure to F&N for consideration.
8-31-89	Meeting with Boyer and Wintersonadditional information handed to Boyer.
12-3-89	Letter from Boyer: draft being preparedshould be ready mid-January.
1-10-90	Meeting with Boyer and Winterson.
4-12-90	1st draft receivedto inventors for review.
4-23-90	Winterson's comments received.
5-10-90	Nichols' comments receivedJES to review based on Nichols' comments.
2-22-91	Meeting with C. Smith: he will review PM1367, 1258, D669.

#### (Paper Technology): CONTROLLED BURN RATE CIGARETTE

R. W. Newsome, W. A. Geiszler, and Willie G. Houck Cigarette Technology

A. controlled burn rate cigarette comprising a paper wrapper with at least one calendered zone of reduced permeability.

#### See also PM 1498

3535355

#### Glenn/F&N/Hubbard

5-3-89	Disclosure file opened (was D527). Reviewed at April 18 R&D patent meetingrecommendation
	was to pursue patent coverage.
5-17-89	Inventors preparing samples and data.
8-17-89	Data still not ready.
9-14-89	Meeting with inventors and D. Shulman to review disclosure and data.
9-20-89	1st draft receivedforwarded to inventors for review.
10-2-89	Additional data faxed to Meyer.
10-6-89	2nd draft receivedfaxed to inventors for review.
10-11-89	Ready to fileon hold pending approval from Fred Newman.
9-17-90	Reassigned to Hubbard.
11-15-90	Application to Long at Shook Hardy for review and approval.

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#### PM 1390 (D474)

#### (Bonded Rods) FOAM ADHESIVE COMPOSITION

J. Lee Gregory III and Theodore E. Majewski Tobacco Materials

An adhesive foam solution having a short setting or curing time for adhering tobacco and other materials in the tip of a cigarette. The foams break down rapidly to allow early curing of the adhesive. In a specific embodiment, the invention comprises a solution of 4-5% sodium carboxymethyl cellulose (NaCMC) and .75-1.0% licorice mixed in water. Air is then added to this solution to produce a foam with an expansion ratio within the range from 6:1 to 10:1. A method of testing the relative breakdown times of different foam compositions is also disclosed.

#### See also PM 1391

#### Schardt/F&N/Godziela

8-31-89	PM file opened (was D474)forwarded to F&N for application preparation.
3-2-90	Meeting with Godziela and inventors.
11-30-90	1st draft receivedto inventors for review.
1-21-91	Status inquiry to Gregory re review of draft.
2-28-91	2nd status inquiry to Gregory.

(Bonded Ends) POLYDEXTROSE ADHESIVE COMPOSITION AND METHOD OF PREPARING THE SAME.

Theodore E. Majewski Tobacco Materials

An adhesive foam solution having a short setting or curing time for adhering tobacco and other materials in the tip of a cigarette. The foams break down rapidly to allow early curing of the adhesive. In a specific embodiment, the invention comprises neutralized solutions of polydextrose and licorice mixed in water. Air is then added to this solution to produce a foam with an expansion ratio within the range from 6:1 to 10:1. A method of testing the relative breakdown times of different foam compositions is also disclosed.

See also PM 1390

#### Schardt/F&N/Godziela

8-31-89	PM file opened (was D551)forwarded to F&N for application preparation.
3-2-90	Meeting with Godziela and Majewski.
11-30-90	1st draft receivedto inventor for review.
1-16-91	Inventor's comments forwarded to Godziela.

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#### PM 1394 (D560)

1945

(Beta) SMOKING ARTICLE DESIGNED TO IMPROVE CONTROL OF THE HEAT AND TEMPERATURE PROVIDED TO EACH PUFF

F. V. Utsch, B. C. LaRoy, and A. C. Lilly Physical Research

#### Glenn/F&N

8-31-89	PM file opened (was D560)forwarded to F&N for application preparation.
9-20-89	Letter from C. Smith: need drawingsrequest sent to Utsch.
11-30-89	Follow-up to Utsch.
5-31-90	Status inquiry to Utsch.
10-23-90	Drawings being prepared.
12-13-90	Checked statusdraftsman's workload backed up.
3-6-91	Drawings should be completed in a week

#### PM 1396 (D554)

#### NOVEL ORGANIC ACIDS (LIQUID ION EXCHANGERS):

R. N. Ferguson, C. R. Howe, H. V. Secor, and J. Seeman-Chemical Research

In a preferred embodiment this invention provides novel organic acids which exhibit utility as liquid ion exchangers suitable for use in solvent extraction.

#### Schardt/Depaoli

8-31-89	PM file opened (was D554)forwarded to Depaoli for application preparation.
1-8-90	1st draft receivedto inventors for review.
7-31-90:	Status inquiry to Seeman.
1-28-91	Inventors' comments on draft and additional information to Depaoli.
2-12-91	2nd draft sent to inventors for review.
3-14-91	Inventors' comments sent to Depaoli.

#### PM 1397

(Paper Technology) SYNTHESIS OF MAGNESIUM CARBONATE/CALCIUM CARBONATE BY THE SOLGEL PROCESS FOR USE AS CIGARETTE PAPER ADDITIVES AND FILLERS TO REDUCE SIDESTREAM

Andrew G. Kallianos and Kathleen R. Hansen Flavor Development

#### Schardt/F&N/Hintz

8-31-89	PM file opened (was D549)forwarded to F&N for application preparation.
9-28-89	Letter from C. Smith: assigned to Yankwick.
1-11-90	Meeting with Kallianos and Yankwick.
11-20-90	Letter from Hintz to Kallianos requesting additional information.
2-18-91	Inventors in the process of drafting background sections for the application.

#### SMOKING COMPOSITIONS CONTAINING AN OXALATE FLAVORANT-RELEASE ADDITIVE

W. Geoffrey Chan Chemical Research

In one embodiment this invention provides smoking compositions which contain a novel oxalate ester flavorant-release additive. Under cigarette smoking conditions, a combustible filler additive such as methyl 4-oxo-β-ionyl oxalate pyrolyzes and releases megastigma-5,7,9-trien-4-one as a natural flavorant component of the cigarette smoke.

#### Schardt/Depaoli

8-31-89	PM file opened (was D557)forwarded to Depaoli for application preparation.
11-21-89	Letter from Depaoli: additional info neededrequest sent to Chan.
3-30-90	Checked status with Chanhe expects to have data for pyrazine aspect in 2-3 weeks. He will then start on other aspect.
8-23-90	Depaoli discussed by Phone with Chan; Chan to submit examples and references.
9-12-90	Experimental data forwarded to Giancola.
10-11-90	1st draft receivedto Chan for review.
1-22-91	Checked statusChan still reviewing.

#### PM 1399A

 $\{y_i\}_{i \in \mathcal{Y}}$ 

#### SMOKING COMPOSITIONS CONTAINING AN OXALATE FLAVORANT-RELEASE ADDITIVE

W. Geoffrey Chan Chenical Research

In one embodiment this invention provides smoking compositions which contain a novel oxalate ester flavorant-release additive. Under cigarette smoking conditions, a combustible filler additive such as methyl 2-pyrazinyl-2-propanyl oxalate or di(2-pyrazinyl-2-propanyl) oxalate pyrolyzed and releases 2-isopropenylpyrazine flavorant as a volatile component of the cigarette smoke.

#### Schardt/Depaoli

11-21-89	Additional info requested from Depaoli.
7-20-90	Additional info forwarded to Depaoli.
9-27-90	1st draft receivedto Chan for review.
1-22-91	Checked statusChan still reviewing.

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#### PM 1401 \*\*\* FILED \*\*\*

(Ambrosia) SMOKING COMPOSITIONS CONTAINING AN ALDEHYDE-RELEASE SACCHARIDE ADDITIVE

W. Geoffrey Chan

Chemical Research

This invention provides smoking compositions which contain a novel flavorant-release additive. Under cigarette smoking conditions, a combustible filler and/or paper wrapper additive such as 4'-formyl-2'-methoxyphenyl 4,6-0-cinnamylidene)-β-D-glucopyranoside pyrolyzes into cinnamaldehyde and vanillin flavorants as volatile components of the cigarette smoke.

#### Schardt/Depaoli/Giancola

1491144

8-31-89	PM file opened (was D548)forwarded to Depaoli for application preparation.
9-20-89	Letter from Depaoli: more information and references neededrequest sent to Chan.
2-28-90	Info receivedforwarded to Depaoli.
5-29-90	1st draft receivedto inventor for review.
6-11-90	Inventor's comments receivedforwarded to Depaoli.
7-18-90	Revised application receivedto Chan for final review.
1-23-90	Chan's comments sent to Giancola.
1-30-91	Revised application receivedto Chan for review.
2-11-91	Executed application sent to Giancola for filing.

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#### PM 1403 \*\*\* INACTIVE \*\*\*

(Sigma) FLUIDIZED BED TECHNOLOGY--AN ALTERNATIVE PROCESS FOR THE SYNTHESIS OF IRON CARBIDE AND NITRIDE

M. R. Hajaligol, S. C. Deevi, D. S. Kellogg, S. D. Ariprala, B. E. Waymack Physical Research/Whidby/Charles

#### Schardt/F&N/Loring/Gross

8-28-89	Filing recommended by R&D Patent Committeedisclosure to F&N for application preparation.
11-1-89	Meeting with Boyer and Deevi to review disclosure.
4-10-90	Additional information forwarded to Boyer.
1-8-91	Meeting with Loring/Gross/Hajaligol.
2-26-91	Decision to published in scientific journal and discontinue efforts to prepare an application.

2020111076

#### METHODS FOR REMOVING NON-METALLIC CONTAMINANTS FROM A STREAM OF MANUFACTURE

D. L. Bilunas, B. C. Kiernan, B. A. Semp, and C. R. Shade Engineering

This invention relates to methods for removing undesirable, non-metallic contaminants from a stream of manufacture, comprising treating the contaminants prior to their entry into the stream of manufacture by adding thereto a metallic substance, detecting the treated contaminants in the stream of manufacture with a metal detection means, and removing the detected contaminants from the stream of manufacture in response to such detection.

#### Schardt/F&N/Riesen

9-29-89	Engineering patent meeting-file.
11-17-89	Disclosure to F&N for application preparation.
11-27-89	Letter from C. Smith: assigned to Phil Riesen.
12-19-89	Additional info received.
2-15-90	Meeting with Kiernan/Shade/Riesen.
2-20-90	Additional info receivedforwarded to Riesen.
6-7-90	Kiernan says may be used commercially soonstatus inquiry to Riesen.
7-19-90	1st draft receivedto inventors for review.
9-14-90	Discussed with Kiernanthey are in the process of reviewing the draft.
12-18-90	Status inquiry to Kiernan.
1-15-91	Inventors' comments on draft forwarded to Riesen.
3-7-91	Letter from C. Smith: Riesen plans to meet with inventors late April.

# 2020111078

#### PM 1406

#### METHOD AND APPARATUS FOR DISPENSING A CONSTANT CONTROLLED VOLUME OF ADHESIVE

# B. C. Kiernan, B. A. Semp, D. M. Driscoll, and D. L. Bilunas Engineering

Relates to controlling adhesive flow through a nozzle such that a consistent, continuously controlled volume of adhesive is dispensed on a moving substrate independent of other system and environmental parameters.

#### Glenn/F&N/Krasnow

9-29-89	Engineering patent meetingfile.
11-17-89	Disclosure to F&N for application preparation.
12-1-89	Meeting with inventors and Butts to review disclosureinventors to provide additional info.
6-14-90	Meeting with Krasnow/Kiernan/Semp.
6-18-90	Patentability opinion received-good chance of obtaining coverage.
1-29-91	1st draft sent to inventors for review.
3-13-91	Inventors' comments sent to Krasnow.
4-10-91	Revised application receivedready to execute.

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#### PM 1407

#### TRAP DOOR CONVEYOR

#### R. McNulty

Engineering.

Conveyor system which provides a number of drop off points for the product being transported.

#### Schardt/F&N/Krasnow

Engineering patent meeting-file.
Disclosure to F&N for application preparation.
Meeting with inventor and Butts to review disclosure.
Additional info received and forwarded to Butts.
Meeting with McNulty/Krasnow.
1st draft receivedto inventor for review.
Status inquiry to McNulty.

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#### (Bonded Rod) METHOD AND APPARATUS FOR TREATING CIGARETTES

David Golob

Engineering

Relates to a method and an apparatus for curing or collapsing foam binders or adhesives generally applied to cigarettes to bind tobacco shreds at the ends of the cigarettes.

#### Schardt/F&N/Riesen

9-29-89	Engineering patent meeting-file.
11-17-89	Disclosure to F&N for application preparation.
11-27-89	Letter from C. Smith: assigned to Phil Riesen.
2-15-90	Meeting with Riesen and Golob.
1-22-91	Status inquiry to C. Smith.
2-28-91	1st draft receivedto inventor for review.

#### PM 1413

993

#### CONDUCTIVE AEROSOL GENERATOR

W. A. Nichols

Tobacco Fundamentals

Aerosol generating unit having a heat source and an aerosol bed, which are capable of aerosol delivery of a flavor without combustion of the aerosol bed.

See also PM 1453

#### Schardt/F&N/Gross/Radulescu

11-14-89	R&D Patent Meeting - pursue patent coverage.
12-12-89	Disclosure file openedto F&N for application preparation.
1-10-90	Meeting with Boyer and Nichols.
4-18-90	1st draft receivedto inventor for review.
7-31-90	Checked status with Nicholswaiting for samples from vendor to conduct tests.
11-13-90	Checked status again with Nicholsstill waiting for samples from vendor.
1-17-91	Revised draft forwarded to Nichols for review.
2-15-91	Meeting with Gross/Radulescu/Nichols.

(Delta/Sigma) NICOTINE-FREE HIGH MOLECULAR WEIGHT TOBACCO FRACTIONS AS FLAVORING AGENTS AND A PROCESS FOR THE PRODUCTION THEREOF BY SIZE EXCLUSION CHROMATOGRAPHY

Wynn R. Raymond Flavor Development

Objects: To isolate from tobacco and concentrate nicotine-free, high molecular weight constituent mixtures which, under conditions of application to tobacco, and manufacture and storage of cigarettes, are nonvolatile, odorless and stable, but which under conditions of smoking are thermally labile and consequently deliver flavorants in smoke.

#### Schardt/F&N/Hall

12-12-89	Disclosure file openedto F&N for application preparation.
1-10-90	Meeting with Karaffa and inventor.
3-29-90	In-house propr art search forwarded to Karaffa.
4-9-90	Inventor's comments on search forwarded to Karaffa.
6-15-90	Meeting with Bauman/Raymond.
7-27-90	Additional info forwarded to Bauman.
12-18-90	1st draft sent to inventor for review.
1-29-91	Inventor's comments sent to Bauman.
2-11-91	Reassigned to Jennifer Hall.

\* \* \* \* \*

(Cast Sheet) RECONSTITUTED TOBACCO SHEET MADE FROM A SLURRY OF TOBACCO DUCT AND CITRUS PECTIN CAST AND DRIED ON A CONTINUOUS STAINLESS STEEL BELT

#### G. Gelltaly

Tobacco Materials

Humectants and additives may be added to obtain desired subjective smoking characteristics. The physical quality of this reconstituted tobacco sheet is increased by reducing the mean tobacco particle size and also by reduction of the air content of the slurry made to cast the sheet.

#### Glenn/F&N/McCabe

12-12-89	Disclosure file openedto F&N for application preparation.
1-11-90	Meeting with Karaffa and Gellatly.
2-8-90	In-house search results forwarded to Karaffa.
2-22-90	Additional info forwarded to Karaffa.
6-15-90	Meeting with Bauman/Gellatly.
6-20-90	References to Gellatly for review; Bauman needs additional data and examples.
9-13-90	Checked status with Gellatlyhe is working on examples.
10-16-90	Checked status again with Gellatlypromises info by 19th.
2-18-91	Status inquiry: Gellatly said references and examples provided.

#### PM 1416 \*\*\* INACTIVE \*\*\*

#### (Project ART) REMOVAL OF NICOTINE FROM AQUEOUS SOLUTIONS BY MONTMORILLONITE

Laurence M. Harwood and John B. Paine III Chemical Research/Ferguson/Charles

This method of removing nicotine has the advantage of being operationally simple (the clay can be removed by filtration or centrifugation) and employing cheap starting materials (montmorillonite clay or bentonite). It leads to a better-defined nicotine-containing material suitable for further degradative work. The montmorillonite has an unusually high absorptive capacity for nicotine compared to other absorbants - eg kaolinite (0.3%). It is comparable in absorptive capacity to the far less selective activated charcoal.

#### Glenn/Depaoli

1941930

12-12-89	Disclosure file openedto Depaoli for application preparation.
12-27-89	Letter from Depaoli requesting art.
12-29-89	Refs forwarded to Depaoli.
1-10-89	Letter from Depaoli: additional work being done per Seemancase on hold for now.
1-22-91	Status inquiry to Friedman.
3-1-91	Inactivatedno further work planned in this area.

\* \* \* \*.

#### (NET) CONCENTRATED MICROWAVE ENERGY EXPANSION OF TOBACCO

#### R. A. Tamol

98149

**Development Engineering** 

#### Glenn/F&N/Bergin

Disclosure file openedto F&N for application preparation.
Additional info receivedforwarded to F&N.
Assigned to Bergin.
Prior art receivedforwarded to Tamol for review.
Addendum to search forwarded to Tamol.
Letter from Bergin suggesting meeting with inventor to review art.
Letter from Bergin clarifying that this application is on <i>hold</i> pending study of prior art in expansion area by us.
Prior art sent to F&N for patentability evaluation and quick filing if opinion favorable.
Bergin to consider drafting claims focused on concentrated microwave treatment of impregnated tobacco.

## PM 1423-A (D581)

#### (Beta) TEMPERATURE SENSOR TYPE FLOW MONITOR DEVICE IN A CIGARETTE

#### C. T. Higgins

**Development Engineering** 

Temperature sensor type flow meter (or true flow meter).

#### Glenn/F&N/Bergin

2-14-90	Disclosure file openedto F&N for application preparation.
3-8-90	Assigned to Bergin.
8-29-90	Letter from Bergin requesting additional information.
9-14-90	Requested C. Higgins to call Bergin to discuss case.
10-17-90	Meeting with Bergin and Higgins.
11-15-90	Divided into A and B files.
1-29-91	Checked status with Berginhe is working on draft.

\*\*\*\*

#### PM 1423-B (D581)

#### (Beta) CAPACITOR/PIEZOELECTRIC TYPE FLOW MONITOR DEVICE IN A CIGARETTE

C. T. Higgins

sigip.

**Development Engineering** 

Capacitor and piezoelectric type flow meter.

#### Glenn/F&N/Bergin

11-15-90 PM 1423 Divided into A and B files.

1-29-91 Checked status with Bergin--he is working on draft.

(Filter Technology) PAPER FORMED FROM COMBINATION OF CA AND TREATED CELLULOSE FIBERS FOR IMPROVED FILTER EFFICIENCY

Navin Gautam and Robert M. Rogers Tobacco Materials

See also PM 1503, 1527, D568, D584, D678

#### Glenn/F&N/Schoneman

2-14-90 Disclosure file opened.
1-28-91 Disclosure to F&N for application preparation.
3-4-91 D568 and D584 sent to F&N for consideration with this and related cases.

\*\*\*\*

#### PM 1425

(Manufacturing) RESTRUCTURED TOBACCO DRYER

John N. Hickle Engineering

Apparatus and method for in which reconstituted tobacco sheet is produced by applying a tobacco containing slurry to a steam heated drum dryer.

#### Glenn/F&N/Brook

2-14-90	Disclosure file openedto F&N for application preparation.
3-8-90	Assigned to Brook.
4-25-90	Meeting with Brook/Hickle.
12-13-90	1st draft sent to inventor for review.
1-25-91	Inventor's comments sent to Brook.
3-20-91	Checked status with Brookrevised draft should be ready by mid-April

K \* \* \* \*

#### PM 1426 \*\*\* FILED \*\*\*

(Manufacturing) UNIVERSAL MATERIAL CARRIER AND OVERHEAD MONORAIL SYSTEM

# Gary E. Grollimund and Hannes K. Junginger Engineering

Apparatus and method for transporting a variety of cigarette and packaging components to the manufacturing and packaging areas of a cigarette manufacturing and packaging operation.

#### Glenn/F&N/Brook

2-14-90	Disclosure file openedto F&N for application preparation.
3-8-90	Assigned to Brook.
4-25-90	Meeting with Brook/Grollimunddrawings handed to Brook.
6-22-90	Videotape and photos receivedforwarded to Brook.
10-23-90	Checked status with Brookhe will start on this case soon (has 2 others to complete first).
3-27-91	1st draft received.
4-3-91	Filed in PTO.

## PM 1427 (D595)

(Manufacturing) TRASH REMOVAL APPARATUS AND METHOD

### R. A. Arents and Everett C. Patterson

Engineering

Apparatus and method for separating loose shreds of tobacco and large and small trash from rejected cigarettes.

#### Schardt/F&N/Brook

2-14-90	Disclosure file openedto F&N for application preparation.
3-8-90	Assigned to Brook.
4-25-90	Meeting with Brook/inventorsdrawings handed to Brook.
5-10-90	Search and background info forwarded to Brook.
1-22-91	Status inquiry to C. Smith.
2-21-91	Meeting with Brook/Patterson-1st draft handed to Patterson for review.
3-12-91	2nd draft receivedto inventors for review.
4-8-91	Patterson's comments sent to Brook.

\* \* \* \*

#### PM 1431 \*\*\* FILED \*\*\*

(Filter Technology/CO Removal) USE OF IRON OXIDES OR MIXED TRANSITION METAL OXIDES AS: CATALYST SUPPORTS

R. L. Augustine and S. Tanielyan (Seton Hall)
Physical Research

This invention relates to improved catalysts for the oxidation of carbon monoxide and methods of preparing these catalysts. The catalysts of this invention are prepared using a sequential precipitation process which generates catalysts that contain substantially layered metal oxides, both supported and unsupported, and, in some embodiments of the invention, a noble metal or mixture of noble metals layered on the metal oxides. These catalysts are particularly useful in smoking articles.

#### Glenn/F&N/DeFranco/Loring

3-22-90	Patent review meeting: file.
4-5-90	Disclosure file openedto F&N for application preparation.
4-17-90	Assigned to DeFranco.
8-8-90	Letter to Dr. Augustine requesting additional information.
11-12-90	References sent to Augustine by DeFranco for review.
1-17-91	Meeting with JES/Lilly/Augustine; Augustine's comments forwarded to DeFranco.
2-4-91	Revised draft application sent to Kellogg and Augustine.
2-11-91	Revised draft application sent to Kellogg and Augustine.
2-15-91	Filed in PTO without formal papers.

#### PM 1433

(Manufacturing/Cartier 20) METHOD AND APPARATUS TO ROLL AND FORM THE RADIUSED CORNERS OF A FOUR-CORNERED HINGED LID CIGARETTE PACK INNERFRAME

Donald E. Kennedy Engineering

#### Schardt/F&N/Panichi

3-22-90	Patent review meeting: file.
4-5-90	Disclosure file opened.
4-17-90	Disclosure to F&N for application preparation
8-1-90	Re-assigned to Panichi.
10-22-90	Meeting with Panichi/Kennedy.
10-25-90	Drawings forwarded to Panichi.

(Manufacturing) AN ARTICLE OF MANUFACTURE WHEREBY AN INNERFRAME IS DISCLOSED THAT ENABLES THE PACKING OF CIGARETTES OF VARIABLE DIAMETER IN A STANDARD WIDTH PACK

Xuan M. Pham, Jack R. Colgan, and Howard H. Fishburne Engineering

See also D623

#### Schardt/F&N/Panichi

3-22-90	Patent review meeting: file.
4-5-90	Disclosure file opened.
4-17-90	Disclosure to F&N for application preparation.
4-30-90	Assigned to Solomon.
7-23-90	Ad-Pack and POL released 1st quarter 1988.
8-28-90	Letter from C. Smith: re-assigned to Panichi.
10-22-90	Meeting with Panichi/Pham.
10-25-90	Sample and drawing forwarded to Panichi.

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#### PM 1439

(Paper Technology) FILLER MIXTURE FOR CIGARETTE PAPER CONSISTING OF CaCO, PARTICLES COATED WITH SOL-GEL "MAG CARBONATE"

#### A. G. Kallianos

Chemical Research

#### Schardt/F&N/Hintz

3-22-90	Patent review meeting; file.
4-5-90	Disclosure file openedto F&N for application preparation.
11-20-90	Letter from Hintz to Kallianos requesting additional information.
3-6-91	Kallianos indicates another two months will be needed to evaluate new coating technology.

(Paper Technology) TREATMENT OF Mg(OH), CONTAINING CIGARETTES OR CIGARETTE PAPERS TO OBTAIN PARTIAL CONVERSION OF Mg(OH), TO HYDROMAGNESITE, AND/OR MAGNESITE

J. Fournier and J. Seeman Chemical Research

See also PM 1494, 1444, 1466, and 1511

#### Glenn/F&N/Schneider

3-22-90	Patent review meeting: file.
4-5-90	Disclosure file openedto F&N for application preparation.
4-18-90	Assigned to Schneider; additional info requested.
4-26-90	Prior art and related PM disclosures forwarded to Schneider.
5-24-90	Meeting with Schneider/inventors.
10-2-90	Schneider instructed to put on hold for nowmore work needs to be done by inventors:

\*\*\*

#### PM 1442

Same

(Delta/Sigma) THERMALLY RELEASABLE GEL-BASED FLAVOR SOURCE FOR SMOKING ARTICLES

#### W. A. Nichols

**Tobacco Fundamentals** 

A gel-based tobacco-containing thermally releasable flavor source that provides the sensations associated with the smoking of tobacco without the burning of tobacco.

#### Schardt/F&N/Gross/Radulescu

3-22-90	Patent review meeting: file.
4-5-90	Disclosure file openedto F&N for application preparation.
4-25-90	Meeting with Boyer/Nichols.
1-17-91	1st draft forwarded to Nichols for review.
2-15-91	Meeting with Gross/Radulescu/Nichols.
3-13-91	2nd draft to Nichols for review.
4-4-91	Revised application receivedready to execute.

# 2020111090

#### PM 1443 (D604, D649)

#### (FACT) CARBON FILTER FOR REMOVAL OF AMMONIA AND NICOTINE FROM AIR

Chuck Hayward, John Lephardt, Bob Rogers

Use of carbon filters to remove tobacco smoke and other gaseous compounds (particularly ammonia) from air in an indoor air handling system.

#### Glenn/F&N/Radulescu

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#### PM 1445

#### MACHINE VISION INSPECTION SYSTEM

#### J. S. Osmalov

Tobacco Processing and Fabrication

See also PM 1470

#### Schardt/F&N/Krasnow

3-22-90	Patent review meeting: file.
4-5-90	Disclosure file openedto F&N for application preparation.
4-17-90	Assigned to Brandtsearch suggested.
5-11-90	Photos/sketches requested from Osmalov.
6-22-90	Photos/sketches forwarded to C. Smith.
7-25-90	Patentability opinion for related case PM 1470 to Osmalov.
11-14-90	Letter from C. Smith: assigned to Krasnow for review with PM 1470.
^ <sup>4</sup> -91	Meeting with Krasnow/Osmalov.

#### PM 1446 \*\*\* FILED \*\*\*

#### (Robotics) AUTOMATIC TESTING OF A PLURALITY OF SMOKING ARTICLES

Wayne B. Adkins, C. T. Higgins, H. J. McCafferty, E. L. Moss, and J. I. Roncero Development Engineering

A computer-controlled robotic automatic test station that measures a selected number of a plurality of physical parameters of smoking articles and/or smoking article components in a selected sequence.

#### Schardt/F&N/Isackson

4-17-90	Disclosure file openedto F&N for application preparation.
5-3-90	Assigned to Isacksonrequest for additional info to Higgins.
9-25-90	Meeting with Isackson/inventors.
10-5-90	Letter from Isackson: waiting for additional information from inventor; have Beverly to send relevant art or order outside search.
11-5-90	Additional information forwarded to Isackson.
11-30-90	In-house search results forwarded to Isackson.
1-7-91	1st draft to inventors for review.
2-1-91	Inventor's comments sent to Isackson.
2-19-91	Filed in PTO.

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#### PM 1447 \*\*\* FILED \*\*\*

#### (Robotics) METHOD AND APPARATUS FOR MEASURING SMOKING ARTICLES

W. Adkins, C. Higgins, and H. McCafferty Development Engineering

Method and apparatus for measuring the length of a smoking article for use in an automated test station for measuring physical parameters of smoking articles. The length is measured using an electronic linear array camera to obtain the length dimension along a first axis as the smoking article is advanced from one position to another. The length may be measured while the article is moving or stopped. The length may be measured directly, or indirectly by measuring the length from a selected point.

#### Schardt/F&N/Isackson

4-17-90	Disclosure file openedto F&N for application preparation.
5-3-90	Assigned to Isacksonrequest for additional info to Higgins.
9-25-90	Meeting with Isackson/inventors.
10-5-90	Letter from Isackson: proceed with application preparation or order novelty search?
11-8-90	1st draft receivedto inventors for review.
12-5-90	In-house search results forwarded to F&N.
1-15-91	Inventors' comments forwarded to Isackson.
2-19-91	Filed in PTO.

#### PM 1448 \*\*\* FILED \*\*\*

(Robotics): APPARATUS AND METHOD FOR REMOVING TOBACCO SHREDS FROM A CIGARETTE FILTER

Wayne B. Adkins and Jose I. Roncero Development Engineering

An automated method and apparatus for removing tobacco shreds from the end of a smoking article filter severed from a tobacco containing smoking article, such as a cigarette. A mechanical arm of a robot, having opposing gripping members, is used to grip and insert the filter into the deshredding apparatus whereupon a deshredding tool is rotated to contact, and a stream of high-pressure air is simultaneously directed at, any tobacco shreds remaining in the tobacco end of the severed filter portion. An exhaust removes the loosened tobacco shreds. The robot then removes the filter from the apparatus. The filter is then ready to be subjected to characterization tests.

#### Schardt/F&N/Isackson/Radulescu

33886

4-17-90	Disclosure file openedto F&N for application preparation.
5-3-90	Assigned to Isacksonrequest for additional info to Higgins.
9-25-90	Meeting with Isackson/inventors.
10-5-90	Letter from Isackson: Radulescu will proceed with application preparation; have Beverly send any relevant prior art.
11-14-90	1st draft receivedto inventors for review.
12-13-90	In-house search results forwarded to F&N.
1-15-91	Inventors' comments forwarded to Isackson.
2-19-91	Filed in PTO.

\* \* \* \*

### PM 1449 \*\*\* FILED \*\*\*

### (Robotics) APPARATUS AND METHOD FOR GRIPPING A CIGARETTE

Wayne B. Adkins and Jose I. Roncero Development Engineering

Method and apparatus for gripping cigarettes of different dimensions with the same two fingers of a robotic device.

### Schardt/F&N/Isackson/Radulescu

544

4-17-90	Disclosure file opened-to F&N for application preparation.
5-3-90	Assigned to Isacksonrequest for additional info to Higgins.
9-25-90	Meeting with Isackson/inventors.
10-5-90	Letter from Isackson: Radulescu will proceed with application preparation; have Beverly send any relevant prior art.
11-14-90	1st draft receivedto inventors for review.
11-19-90	In-house search results forwarded to Radulescu.
11-20-90	Roncer's comments received.
1-8-91	Follow-up to Adkins re review of draft.
1-15-91	Inventors' comments forwarded to Isackson.
2-19-91	Filed in PTO.

\* \* \* \*

### PM 1450 \*\*\* FILED \*\*\*

### (Robotics) APPARATUS AND METHOD FOR CUTTING A CIGARETTE

W. Adkins and Jose Roncero Development Engineering

An automated method and apparatus for cutting a smoking article, such as a cigarette, into sections and removing a component, such as the filter section, from the article, A mechanical arm of a robot having opposing gripping members is used to grip and insert the article into the cutting apparatus whereupon a piston rod causes a blade edge to sever the article just above the filter. After the robot removes the filter from the apparatus, the filter is then ready to be subjected to characterization tests.

### Schardt/F&N/Isackson/Radulescu

4-17-90	Disclosure file openedto F&N for application preparation.
5-3-90	Assigned to Isacksonrequest for additional info to Higgins.
9-25-90	Meeting with Isackson/inventors.
10-5-90	Letter from Isackson: Radulescu will proceed with application preparation; have Beverly send any relevant prior art.
11-8-90	1st draft receivedto inventors for review.
1-3-91	Inhouse search to Isackson.
1-9-91	Follow-up to Adkins re draft review.
1-15-91	Inventors' comments forwarded to Isackson.
2-19-91	Filed in PTO.

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### PM 1453 (D539)

NEW DESIGN: HEATING EXTRUDED TOBACCO PELLETS WITH A CHEMICAL HEAT SOURCE TO IMPROVE AEROSOL DELIVERY

Mohammad R. Hajaligol, Constance H. Morgan, and Seetharama C. Deevi Physical Research

Improved smoking article that provides an aerosol flavor delivery without the combustion of tobacco. Pellets of an aerosol generator are placed proximally to a heat source so that heat transfer from the heat source to the aerosol generator is accomplished by convection and conduction. Upon combustion, the heat source generates sufficient heat to liberate flavors from the aerosol generator while liberating substantially no carbon monoxide.

### Schardt/F&N/Gross/Radulescu

4-25-90	Disclosure file openedto F&N for consideration with PM 1413.
5-1-90	Letter from Smith: distinct from 1413will prepare as separate application.
6-20-90	Inventors' comments on 1st draft forwarded to Boyer.
2-15-91	Meeting with Gross/Radulescu/Hajaligol

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### PM 1457

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(Sigma) METHOD FOR ORIENTING CYLINDRICAL COMPONENTS WITH ONE CAPPED END

Bill J. Keen Engineering

Relates to a mechanism for orienting cylindrical components having one capped end and one open end comprising six drums which are aligned in a staggered formation.

### Glenn/F&N/McCabe

5-17-90	Disclosure file openedto F&N for application preparation.
6-6-90	Letter to C. Smith: conduct novelty search.
10-23-90	C. Smith called to say search complete and report being prepared; references forwarded to Keen by
	Bauman for review and comment.
11-16-90	Patentability study completed; should be possible to obtain claims of limited scopeBauman will proceed with application preparation
1-2-91	F&N instructed to proceed with application preparation.

\*\*\*\*

(Sigma) METHOD FOR CUTTING, FORMING AND INSERTING ALUMINUM CUPS INTO GENERATOR TUBES

Terry Babbitt, Mike Braunshteyn, A. J. Gillespie, Don H. Jones, Bill J. Keen, Robert H. Raynor, and Ray Ritt, and R. E. Talley
Engineering

Manufacturing method and apparatus for forming and inserting metal cups into the ends of pre-cut sections of tubing.

### Glenn/F&N/Isackson/Starer

5-17-90	Disclosure file openedto F&N for application preparation.
6-29-90	Meeting with Isackson/inventors.
7-10-90	Additional information forwarded to F&N F&N instructed to conduct novelty search.
9-17-90	Checked status with Isacksonhe is waiting for search results.
10-17-90	Letter from C. Smith: search results should be in this week.
11-16-90	Novelty search completed; claims of reasonable scope should be allowedIsackson will proceed with application preparation.
3-20-91	Checked status with Isacksondraft should be completed by mid-April.

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### PM 1459 \*\*\* FILED \*\*\*

### LAMINAR FLOW DUST SHIELD FOR WIDE ANGLE LENSE

N. Rowe and W. R. Sweeney Engineering

Apparatus for preventing the deposition of dust on a surface, for example, the transparent surface of an optical instrument, is provided. The apparatus includes a tube and a hollow porous frustrum. The surface is placed inside the tube. The small opening of the diffuser frustrum is placed adjacent to the surface, and the large opening of the diffuser frustrum is sealed against the inner wall of the tube. Compressed gas is flooded into the tube, passes through the diffuser frustrum and sets up a laminar gas flow away from the surface, thus preventing the deposition of dust on the surface.

### Glenn/F&N/Starrer

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5-17-90	Disclosure file openedto F&N for application preparation.
6-6-90	Letter to C. Smith: conduct novelty search.
8-27-90	Letter from C. Smith communicating favorable search results; they will proceed with application preparation.
10-4-90	More descriptive information requested from inventors.
10-18-90	Additional information forwarded to Starer with instructions to proceed with application preparation.
1-12-91	1st draft sent to inventors for review.
1-29-91	Inventors' comments sent to Starer.
2-26-91	Filed in PTO.

\* \* \* \* \*

### (NET) LOW PRESSURE/TEMPERATURE TOBACCO IMPREGNATION

Joe Dobbs and K. Cho Physical Research

### Glenn/F&N/McCabe

5-17-90	Disclosure file openedto F&N for application preparation.
6-5-90	Meeting with inventors/Ingermanadditional info needed.
9-18-90	Letter from McCabe: research promised at 6/5 meeting completed yet?
11-13-90	Meeting with Ingerman/McCabe/inventors.
2-25-91	Meeting with McCabe/inventors.
3-8-91	Letter from C. Smith: additional research required to define operating conditions.

\* \* \* \* \*

### PM 1462

### (NET) CONTINUOUS IMPREGNATION AND EXPANSION PROCESSES FOR TOBACCO

K. H. Cho

Physical Research

### Glenn/F&N/McCabe

5-17-90	Disclosure file openedto F&N for application preparation.
6-5-90	Meeting with inventors/Ingermanadditional info needed.
9-18-90	Letter from McCabe: research promised at 6/5 meeting completed yet?
11-13-90	Meeting with Ingerman/McCabe/inventors.
2-25-91	Meeting with McCabe/inventors.
3-8-91	Letter from C. Smith: being reviewed re PM 1500.

\*\*\*\*

### (NET) SEMI-CONTINUOUS GASEOUS IMPREGNATION AND EXPANSION PROCESSES FOR TOBACCO

### K. H. Cho and Joe Dobbs

Physical Research

### Glenn/F&N/McCabe

5-17-90	Disclosure file openedto F&N for application preparation.
6-5-90	Meeting with inventors/Ingerman.
9-18-90	Letter from McCabe: research promised at 6/5 meeting completed yet?
11-13-90	Meeting with Ingerman/McCabe/inventors.
1-24-91	Additional information sent to McCabe.
2-25-91	Meeting with McCabe/inventors.
3-8-91	Letter from C. Smith: draft application will be prepared.

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### PM 1464 \*\*\* FILED \*\*\*

### (Ambrosia) SMOKING COMPOSITIONS CONTAINING A VANILLIN-RELEASE ADDITIVE

## W. G. Chan, H. Grubbs, Y. Houminer, K. Podraza, and T. Sanders-Chemical/Research

This invention provides smoking compositions which contain a novel vanillin flavorant-release additive. Under cigarette smoking conditions, a combustible filler and/or paper wrapper additive such as ethyl 3-(4'-butoxycarbonyloxy-3'-methoxyphenyl)-3-hydroxy-2-phenylpropanoate pyrolyzes into vanillin and ethyl phenyulacetate flavorants as volatile components of the cigarette smoke.

### Schardt/Depaoli/Giancola

3-17-90	Disclosure file openedto Depaoli for application preparation.
9-12-90	1st draft receivedto Chan for review.
10-22-90	Chan's comments forwarded to Depaoli.
12-4-90	Revised application receivedto inventors for review.
1-22-91	Inventors' comments sent to Giancola.
2-1-91	Revised application to inventors for review.
4-9-91	Executed and sent to Giancola for filing.

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### PM 1465 (D649)

\*\*\* COMBINED \*\*\*

(PACT) TREATED HIGH POROSITY FILTERS AND METHODS USEFUL FOR CONDITIONING THE AIR TO REMOVE COMPONENTS FOUND IN ENVIRONMENTAL TOBACCO SMOKE USING SAME

### C. Hayward

See also PM 1443

### Glenn/F&N/McCabe

5-17-90	Disclosure file openedto F&N for application preparation; requested copies of notebook pages from	
	Chuck.	
06-15-90	Meeting with Bauman/Hayward.	
07-05-90	Letter to C. Smith: proceed with novelty search.	
2-1-91	1st draft application received.	
2-15-91	Meeting with Radulescu/Gross/Hayward.	
2-22-91	Combined with PM 1443.	

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### PM 1467

(Sigma) A FLAVOR DOT CONCEPT: SMOKING ARTICLE WITH LOW CARBON MONOXIDE AND NO SIDESTREAM SMOKE

M. Hajaligol and S. Deevi Physical Research

### Schardt/F&N/Gross/Radulescu

5-17-90	Disclosure file openedto F&N for application preparation.
6-11-90	Meeting with Boyer/Deevi.
2-15-91	Meeting with Gross/Radulesco/Deevi/Hajaligol.

. . . . .

(Beta) HEATER OR RESISTOR LOAD ARRAY CONFIGURED BY CONNECTING RESISTORS IN A CROSS BAR CONFIGURATION

Chuck Higgins, M. R. Hajaligol, Mike Watkins, B. E. Waymack, and S. Yi Development Engineering

### Glenn/F&N/deBlasi

5-17-90	Disclosure file openedto F&N for application preparation.
6-20-90	Meeting with deBlasi/Higgins.
9-5-90	Higgins advises to proceed without further informationF&N will draft application and also claim smoking article w/flexible heater.
10-2-90	PM 1495 combined herewith; additional info forwarded to deBlasi.

\*\*\*\*

### PM 1470

HIGH SPEED ON-LINE 360° SURFACE DEFECT INSPECTION OF CIGARETTES

H. Longest Engineering

See also PM 1445

### Schardt/F&N/Krasnow

5-17-90	Disclosure file openedto F&N for application preparation.
6-14-90	Meeting with Krasnow/Longest.
6-28-90	Patentability opinion: meaningful coverage would be difficult.
7-25-90	Opinion to E. Richardson.
11-14-90	Letter from C. Smith: Krasnow to review with PM 1470.
1-9-91	Status inquiry from C. Smith.
2-4-91	Meeting with Krasnow/Longest; additional information needed.

\* \* \* \* \*

### PM 1474DES (D634) \*\*\* FILED \*\*\*

### (Beta) DESIGN - DELIVERY ARTICLE

E. S. Gee, A. C. Lilly, D. B. Losee, J. L. Myracle, Jr., C. H. Morgan, F. M. Sprinkel, F. V. Utsch, and J. F. Whidby

### Glenn/F&N/Farber

5-17-90	Disclosure file openedto F&N for application preparation.
6-14-90	F&N instructed to conduct design search; drawings to inventors for comment re search.
8-2-90	Patentability search completedwill proceed with 2 design applicationsinventors asked to provide additional information.
9-5-90	Memo to inventors with pages 13, 14 and 17.
10-11-90	Design drawings to F&N.
11-16-90	Sample articles forwarded to Solomon.
12-26-90	1st draft sent to inventors for review.
3-4-91	Revised application receivedready to execute.
3-15-91	Executed and sent to F&N for filing.

\* \* \* \*

### PM 1478 (D608)

### SOL GEL ENCAPSULATION OF A CHEMICAL HEAT SOURCE

### S. C. Deevi

10.15 (1)

Physical Research

Refers to encapsulating a chemical heat source with a sol-gel which protects the heat source from ambient conditions. The sol-gel is applied as a thin coating solely on the exterior of the heat source.

### Schardt/F&N/Gross

6-12-90	Disclosure file opened. F&N proceeding with application based on favorable patentability opinion.
11-20-90	Meeting with Deevi/Boyer.
1-9-91	Status inquiry from Gross; informed her to proceed.

\*\*\*\*

(Tomorrow) APPLICATION OF CELLULOSE TO CIGARETTE PAPER FOR BURN RATE MODIFICATION

### S. D. Baldwin

Chemical Research

The burn rate of a cigarette is controlled by the use of a paper wrapper treated with bands of cellulose and a binder.

### Schardt/F&N/Lee

6-26-90 Disclosure file opened.

7-13-90 Disclosure to F&N for application preparation.

1-7-91 1st draft to Baldwin for review.

\*\*\*\*

### PM 1481 (D674) \*\*\* FILED \*\*\*

(Beta) FLAVOR GENERATING ARTICLE

C. H. Morgan and W. A. Nichols Physical Research/Whidby/Charles

An article is provided in which a replaceable flavor generating medium is electrically heated by a set of permanent reusable heaters to evolve inhalable flavors or other components in vapor or aerosol form. Each heater heats only a portion of the available flavor generating medium so that a plurality of individual puffs of flavor-containing substance can be delivered sequentially to the consumer.

### Glenn/F&N/Ingerman

2.593

6-26-90	Disclosure file opened.
7-3-90	Disclosure to F&N for application preparation.
7-18-90	Meeting with Ingerman/inventors.
10-1-90	Letter from Ingerman: waiting for test results from inventors.
10-11-90	Tests results forwarded to Ingerman.
10-31-90	1st draft receivedto inventors for review.
2-6-91	Comments and additional information sent to Ingerman.
2-15-91	2nd draft receivedto inventors for review.
3-1-91	Revised application receivedready to execute.
3-4-91	Executed and sent to F&N for filing.

\*\*\*\*

### (Beta) HEATER FOR A FLAVOR GENERATOR

### B. J. Keen and Grier Fleischaurer

Improved electrical heater for flavor generator which can heat a plurality of individual flavor beds individually without significantly affecting the neighboring flavor beds.

### Schardt/F&N/Schneider

Disclosure file openedto F&N for application preparation.
Meeting with Schneider/inventors.
Heater array model forwarded to F&N.
1st draft receivedto inventors for review.
Inventors' comments sent to Schneider.

\* \* \* \*

### <u>РМ 1484 П</u> \*\*\* FILED \*\*\*

### CIGARETTE PACK WITH PARTIALLY REMOVABLE INNERFRAME

D. H. Evers Engineering

 $(\{\{i\}\}_{i=1}^n)$ 

A box-like cigarette pack includes an innerframe with a front wall having an initially lower portion which is folded up so that it projects into the cutout conventionally provided in the upper portion of the innerframe front wall. All or part of the folded-up portion may be made readily removable by providing a line of weakness between the removable part and the remainder of the innerframe. The folded-up portion may be printed with any desired information and may form a coupon or coupon-like article when removed. Until removed, the folded-up portion may be somewhat of an impediment to easy removal of cigarettes, thereby prompting the consumer to remove it as intended.

### See also PM 1538

### Schardt/F&N/Jackson

9-5-90	Memo from Evers disclosing PM 1484 variation.
11-26-90	Evers' September 5 memo forwarded to Jackson for consideration.
1-2-91	Draft application receivedto Evers for review.
1-15-91	Ever's comments forwarded to Jackson.
1-29-91	2nd draft sent to Evers for review.
2-4-91	Evers' comments sent to Jackson.
2-18-91	Executed and sent to Jackson for filing.

\* \* \* \* \*

PM 1485 (D679)

### IMPROVED CONTROL DEVICE FOR FLAVOR GENERATING ARTICLE

### F. M. Sprinkel

141 (514)

Physical Research

The invention relates to an improved control device for electrically heated flavor generators. Sensors which detect the lip activity of a consumer associated with taking a puff are used to trigger the heating of flavor generating materials.

### Schardt/F&N/Schneider

7-18-90	Letter from C. Smith: not covered by any prior applicationwill proceed with application preparation.
8-21-90	Meeting with Schneider/Sprinkel.
8-29-90	PM 1492 combined herewith.
9-21-90	1st draft receivedto inventor for review.
11-7-90	Additional information forwarded to Schneider.
3-13-91	2nd draft receivedto inventor for review.

### PM 1494 (D690)

### NOVEL FILLERS FOR SMOKING ARTICLE WRAPPERS AND METHOD FOR MAKING SAME

J. Fournier, A. Kallianos, J. Paine, K. F. Podraza, and J. Seeman Chemical Research

Relates to novel compounds which may be used as fillers for smoking article wrappers and a method for making them.

See also PM 1444, 1441, 1466, and 1511

### Glenn/F&N/Schneider

132.32

8-16-90	Disclosure file opened-to F&N for application preparation.
9-7-90	Related art forwarded to Wilson.
9-11-90	Reassigned to Schneider.
9-20-90	Meeting with Schneider/Podraza.
9-26-90	Data and examples forwarded to Schneider.
12-6-90	1st draft to inventors for review.
1-17-91	Checked status with inventorsstill reviewing.
2-26-91	Inventors' comments sent to Schneider.
3-13-91	2nd draft receivedto inventors for review.

\*\*\*

### AIR VENTILATION SYSTEM

J. O. Lephardt and R. A. Tamol Analytical/Development Engineering

Relates to an air ventilation system for ventilating, heating, cooling or purifying areas such as rooms, houses, theaters, offices or any partitioned spaces. Comprises an air permeable carpet material placed over perforated flooring that is supported by a below-floor air distribution system and an in-ceiling air exhaust vent system.

### Clenn/F&N/Brook

9999

Disclosure file opened.
Disclosure to F&N for application preparation.
Letter from C. Smith: assigned to Brook who will meet with Lephardt on 9/27.
Patentability opinion: chances of obtaining patent protection of reasonable scope would be quite small.
Meeting with Brook/Lephardt; pursuing coverage per CEBG.
1st draft receivedto inventors for review
Inventors' comments sent to Brook.
2nd draft receivedto inventors for review.

\*\*\*

### PM 1497 \*\*\* FILED \*\*\*

### TAMPER-INDICATING WRAPPERS

R. J. Versic and D. D. Emerick (Ronald T. Dodge Co.) Chemical Research/Grubbs/Charles

A tamper-indicating wrapper in which multi-layer, laminated wrappers wherein a visible change between layers of the wrapper indicate that the wrapper has been punctured or that there has been tampering with the wrapper or its contents. The wrapper may be composed of two or more plies of packaging material such as films made from ethylene vinyl alcohol copolymer or from polyolefins such as polypropylene. In one construction, a transparent or translucent laminated wrapper becomes opaque upon rupture or puncture. In other constructions, a transparent or translucent wrapper becomes colored at the site of the rupture or puncture.

### Schardt/F&N/Hintz

8-27-90	1st draft receivedto inventors for review.
1-7-91	Meeting with inventors/Hintz to review draft.
1-14-91	Revised draft forwarded to Dodge inventors for review.
2-20-91	Revised application to Versic/Emrick for review and execution.
3-18-91	Filed in PTO.

\* \* \* \* \*

### PM 1500

### (NET) HIGH PRESSURE VALVE

### K. H. Cho

Tobacco Fundamentals

### Glenn/F&N/Ingerman

9-18-90	Disclosure file opened.
9-27-90	Disclosure to F&N for application preparation.
10-4-90	Assigned to Ingerman; novelty search instituted.
1-10-91	Search results received.
2-25-91	Meeting with McCabe/inventors.
3-8-91	Letter from C. Smith: waiting for copies of valve drawings and detailed description of valve

\*\*\*\*

### PM 1501 (D694)

### (BETA) LOW MASS RADIAL ARRAY HEATER FOR FLAVOR GENERATING ARTICLE

### E. C. Grollimund and F. M. Sprinkel

Physical Research

It is an object of this invention to provide a heating element for a flavor generating article which provides heat to a maximum area of flavor generating medium by having a current density profile which would maximize the area of heat distribution. The heating element is a radial array of U-shaped blades which have only rounded corners so as to eliminate hot-spots.

### Glenn/F&N/Ingerman/Schoneman

9-18-90	Disclosure file opened.
9-27-90	Disclosure to F&N for application preparation.
11-13-90	Meeting with Ingerman/Schoneman/inventors.
2-28-91	1st draft receivedto inventors for review.
4-8-91	Inventors' comments sent to F&N.

\*\*\*\*

### PM 1502

(Paper Technology) USE OF VERY HIGH SURFACE AREA MAGNESIUM CARBONATE AS FILLER FOR LOW SIDESTREAM PAPERS

A. Kallianos and J. Paine Chemical Research

### Clenn/F&N/

9-18-90:	Disclosure file opened.
9-27-90	Disclosure to F&N for application preparation.
10-4-90	Assigned to Ingerman for supervision.
10-9-90	Letter from C. Smith: reassigned to Schneider.
3-20-91	Status check with C. Smith: to be reassigned.

. . . . .

(Filter Technology) FILTER ROD MADE FROM WEB CONSTRUCTED FROM CUT CELLULOSE ACETATE FIBERS AND CELLULON

Navin Gautam, Ken Newman, and R. M. Rogers Tobacco Materials/Alonso/Burnley

See also PM 1424, 1527, D568, D584, D678

### Glenn/F&N/Ingerman/Schoneman

9-18-90	Disclosure file opened.
9-27-90	Disclosure to F&N for application preparation.
11-13-90	Meeting with Ingerman/Schoneman/inventors.
1-29-91	Checked status with Ingerman: waiting for new data.

### PM 1504

### PNEUMATIC CONVEYING OF FILTER RODS PERPENDICULAR TO THEIR AXIS

Gary Atwell, Drew Gillespie, Bill Keen, and George Reid Engineering

### Schardt/F&N/Krasnow

9-18-90	Disclosure file openedto F&N for application preparation.
10-1-90	Letter from C. Smith: have Beverly do search.
1-23-91	Letter from Krasnow: waiting for search results.

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## VERTICAL DRUM TRANSFER OF CIGARETTES TO ALLOW FOR SEPARATE INSPECTION AND REJECTION STATIONS

Gary Atwell and Drew Gillespie Engineering

### Schardt/F&N/Krasnow

9-18-90

Disclosure file opened-to F&N for application preparation.

10-1-90

Letter from C. Smith: have Beverly do search.

2-4-91

Meeting with Krasnow/Atwell.

\*\*\*\*

### PM 1506

### (Cartier

Bill Keen

Engineering/Keen/Taylor

### Schardt/F&N/Krasnow

9-18-90

Disclosure file opened--to F&N for application preparation.

10-1-90

Letter from C. Smith: have Beverly do search.

1-23-91

Letter from Krasnow: waiting for search results.

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### PM 1507

(Optical Inspection) HIGH SPEED, HIGH RESOLUTION WEB INSPECTION

Cary Longest, R. Moffitt, W. R. Sweeney Engineering

### Glenn/F&N/Ingerman/Schoneman

9-18-90

Disclosure file opened.

9-27-90

Disclosure to F&N for application preparation.

11-13-90

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Meeting with Ingerman/Schoneman/inventors.

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# 202011111

### PM 1508

(NET) METHOD FOR THE EXPANSION OF TOBACCO

Walt Nichols

Tobacco Fundamentals

Glenn/F&N/Ingerman/Schoeneman

9-18-90

Disclosure file opened.

9-27-90

Disclosure to F&N for application preparation.

11-13-90

Meeting with Ingerman/Nichols.

\*\*\*\*

### PM 1509

(NET) METHOD FOR THE CONTINUOUS IMPREGNATION OF TOBACCO WITH A GAS OR LIQUID

Walt Nichols

Tobacco Fundamentals

Glenn/F&N/Ingerman/Chen

9-18-90

Disclosure file opened.

9-27-90

Disclosure to F&N for application preparation.

11-13-90

Meeting with Ingerman/Nichols.

\*:\*: \* \*

### PM 1510

(NET) METHOD FOR THE EXPANSION OF TOBACCO

Walt Nichols

Tobacco Fundamentals

Glenn/F&N/Ingerman/Chen

9-18-90

Disclosure file opened.

9-27-90

Disclosure to F&N for application preparation.

11-13-90

Meeting with Ingerman/Nichols.

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### MAGNESITE-MAGNESIUM HYDROXIDE FILLERS FOR SMOKING ARTICLE WRAPPERS

J. Fournier, A. Kallianos, J. Paine, K. Podraza and J. Seeman Chemical Research

Novel fillers for smoking article wrappers comprising magnesite-magnesium hydroxide complexes. Smoking articles employing wrappers containing the fillers of the invention exhibit significantly reduced sidestream smoke.

See also PM 1441, 1444, 1466, and 1494

### Glenn/F&N/Schneider

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9-24-90	Disclosure file opened.
10-3-90	Disclosure to F&N for application preparation.
10-5-90	Experimental data forwarded to Schneider.
12-5-90	1st draft to inventors for review.
1-17-91	Checked status with inventorsstill reviewing draft.
3-6-91	Fournier indicates another two months needed to obtain the data needed for the application.

\* \* \* \*

### PM 1512

### (Beta) IMPROVED CARBONACEOUS HEAT SOURCE

D. M. Schleich (Polytechnic University)

This invention relates to an improved carbonaceous heat source and to the conversion of gaseous by-products, such as carbon monoxide, produced by the combustion of the carbonaceous heat source.

### Schardt/F&N/Loring/Gross

9-26-90	Disclosure file openedfile immediately per Lilly; assigned to F&N who will contact Schleich direct to get dataHIGH PRIORITY.
11-30-90 1-31-91	Additional information forwarded to Loring.  Draft application sent to Schleich for review.

K \* \* \*:\*

# 020111115

### PM 1513 (D677)

### PINLESS BELT FEEDER

## B. Eugene Bailey and W. Randy Sweeney Engineering

Device which utilizes a retractable chute to supply product to a conveyor belt in a manner to maintain control of volume on the conveyor.

### Schardt/F&N/Wilson

10-27-90	Patentability evaluation completedF&N to proceed with application preparation.
11-27-90	Wilson discussed by phone with inventors/JES.
2-27-91	Wilson instructed to proceed with application.

\*\*\*\*

### PM 1514 \*\*\* FILED \*\*\*

### METHODS AND APPARATUS FOR OPTICALLY DETERMINING THE ACCEPTABILITY OF PRODUCTS

### K. A. Cox, Henry M. Dante, and R. J. Maher

The acceptability of the appearance of objects such as consumer products is determined by forming an initial discriminant function as a composite of a relatively small number of images which are known to be acceptible. This initial discriminant function is then used to gather statistical information about how a first relatively large number of images compares to the initial discriminant function. Thereafter, this statistical information is used to select or aid in the selection of acceptable images from a second relatively large number of images, and the images selected as acceptable are used to refine the discriminant function. The refined discriminant function is then used (e.g., during actual product inspection) to determine which objects have an acceptable appearance and which do not.

### Related to PM 1334 and 1514

### Glenn/F&N/Jackson

10-11-90	Disclosure file opened.
10-15-90	1st draft received.
10-18-90	Memo to Cox: need to resolve inventorship.
11-12-90	Inventor's comments forwarded to Jackson.
11-16-90	2nd draft sent to inventors for review.
1-16-91	Inventors' comments sent to Jackson.
2-7-91	3rd draft received.
2-27-91	Instructed Jackson to file today without signatures.

\*\*\*

\*\*\* FILED \*\*\*

PM 1515

### SMOKING COMPOSITIONS CONTAINING A TARTRATE SALT FLAVORANT-RELEASE ADDITIVE

### Y. Houminer and J. Naworal Chemical Research

This invention provides smoking compositions which contain a novel tartrate salt flavorant-release additive, such as an acetal derivative. Under cigarette smoking conditions, a combustible filler and/or paper wrapper additive pyrolyzes and releases benzaldehyde flavorant as a volatile component of the cigarette smoke.

### Schardt/Depaoli/Giancola

10-18-90	Disclosure file openedto Depaoli for application preparation: HIGH PRIORITY.
11-29-90	1st draft receivedto inventors for review.
12-14-90	Inventors' comments, examples, and references to Giancola.
1-4-91	Revised application to inventors for review.
1-15-91	Inventors' comments forwarded to Giancola.
2-11-91	Executed application sent to Giancola for filing.

\*\*\*\*

### PM 1516 \*\*\* FILED \*\*\*

(Ambrosia) SMOKING COMPOSITIONS CONTAINING A FLAVORANT-RELEASE ADDITIVE

### B. A. Demian

Flavor Development

This invention provides smoking compositions which contain a novel flavorant-release additive. Under cigarette smoking conditions, a combustible filler and/or paper wrapper additive such as a molecular inclusion complex of a beta-cyclodextrin torus structure and vanillin releases vanillin as a volatile component of the cigarette smoke. The released vanillin improves the taste of the mainstream smoke and imparts a pleasant aroma to the sidestream smoke.

### Schardt/Depaoli/Giancola

11-13-90	Disclosure file openedto Depaoli for application preparation.
12-4-90	1st draft receivedto inventors for review.
1-21-91	Inventor's comments forwarded to Giancola.
2-1-91	Revised application to inventor for review.
2-7-91	Inventor's comments sent to Giancola.
3-5-91	Executed and sent to Giancola for filing.
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### PM 1517 (D712, D771)

### (Beta) METHOD AND APPARATUS TO PRODUCE AEROSOLS FROM LIQUIDS

### F. M. Sprinkel

Physical Research

The production of aerosols from discrete, preseparated amounts of liquid(s) is disclosed. The preseparated packets of liquid can be packaged into definite sets for production of puffs of aerosol.

### Glenn/F&N/Miraglia

11-13-90	Disclosure file openedto F&N for application preparation.
12-10-90	Assigned to Loretta Miraglia.
1-14-91	Miraglia called to request additional info.
1-25-91	Additional info in the form of D771 disclosure sent to F&N.
4-9-91	PM 1554 combined herewith.

\*\*\*\*

### PM 1518 (D714)

### PAPER WRAPPER HAVING IMPROVED ASH CHARACTERISTICS

### S. Baldwin and E. B. Sanders

Cigarette Technology

The ash characteristics of a cigarette paper wrapper are improved by adding calcium carbonate of certain particle sizes to the base web.

### See also D480 and D790

### Glenn/F&N/Miraglia

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11-13-90	Disclosure file opened-to F&N for application preparation.
12-10-90	Assigned to Loretta Miraglia.
1-16-91	1st draft sent to inventors for review.
1-22-91	Sherry called to say Bold to be shipped February 28.
2-6-91	Inventors' comments sent to Miraglia.
2-11-91	Revised draft received.
2-19-91	In-house search results sent to Miraglia.
3-1-91	D480 sent to F&N for consideration with PM 1518.
4-3-91	Approved by Shook, Hardy.

\*\*\*

### PM 1519 (Ripper S

(Ripper System Development) MULTIPLE RIPPER CLOSED LOOP RECIRCULATING AIR ARRANGEMENT

### **Everett Patterson**

Engineering

### Schardt/F&N/Brook

11-13-90 Disclosure file opened—to F&N for application preparation.

2-21-91 Meeting with Brook/Patterson.

2-26-91 Prior art search results sent to Brook.

\* \* \* \* \*

### PM 1520 \*\*\* COMBINED \*\*\*

### APPARATUS TO APPLY CHARCOAL PARTICLES INTO A CAVITY BETWEEN TWO FILTER SEGMENTS

Gary Atwell, Marc Belcastro, Joe Budjinski, and Martin Garthaffner Engineering

See also PM 1534

### Glenn/F&N/Wilson

11-13-90 Disclosure file opened--to F&N for application preparation--HIGH PRIORITY.

1-15-91 Meeting with Wilson/inventors.

2-1-91 In-house search results sent to Wilson.

2-25-91 Combined with PM 1534.

\*\*\*\*

### PM 1521

(Tomorrow) DUAL PAPER LAYER TECHNOLOGY FOR CONTROL OF BURN PROPENSITY

Al Collins, Bill Keen, George Reid, Ray Ritt, Bill Stevens, Pete Talley, and Howard Vogt Engineering

### Glenn/F&N/Hubbard

11-13-90 Disclosure file opened--to F&N for application preparation--HIGH PRIORITY.

1-28-91 Letter from Hubbard: novelty search underway.

### (NET) PROCESS FOR GASEOUS IMPREGNATION AND EXPANSION OF TOBACCO

K. H. Cho, J. Dobbs, J. Nepomuceno, and R. Prasad Physical Research

Gaseous process for impregnation of tobacco. Minimal extraction occurs and the tobacco temperature exiting the impregnator is warmer which results in less breakage during handling.

### Glenn/F&N/McCabe

11-13-90	Disclosure file opened; meeting with Ingerman/McCabe/inventors; handed to F&N for application
	preparation.
12-6-90	Letter from C. Smith requesting written description of invention.
1-18-91	Meeting with Glenn/Cho.
2-25-91	Meeting with McCabe/inventors.
3-8-91	Letter from C. Smith: application being prepareddetailed data on specific impregnations needed for examples.
4-5-91	1st draft receivedto inventors for review.

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### PM 1523

PRODUCT APPEARANCE INSPECTION METHODS AND APPARATUS EMPLOYING LOW VARIABLE FILTER

K. A. Cox and H. Dante

Physical Research

A comprehensive package inspection method to identify bad packages by means of automatic inspection.

Related to PM 1514, 1334, Itran Agreement File

### Glenn/F&N/Jackson

11-30-90 Disclosure file opened--being pursued due to licensing negotiations with Itran.
12-6-90 Disclosure to F&N for application preparation.
1st draft received--to inventors for review.

\* \* \* \*

(Project Gold) MACHINE MODIFICATION TO ACCOMMODATE USE OF DRY ADHESIVES IN PLACE OF WET GLUE

(Alford-1)

### Glenn/F&N/Brook

12-7-90	Disclosure to F&N for consideration.
1-17-91	Meeting with Pham/Brook.
3-4-91	Additional disclosures sent to Brook.
3-15-91	Status check with Brook-draft should be completed by mid-April; test run scheduled for mid-April.

\*\*\*\*

### PM 1526

(Cartier) BLANK FOR CONSTRUCTING A ROUNDED END CIGARETTE BOX WHICH FEATURES TOP AND BOTTOM PANELS MADE OF CARDBOARD

D. H. Evers

### Glenn/F&N/Cassingham

12-1-90	Disclosure to F&N for search and evaluation.
1-18-91	Additional info sent to F&N.
1-30-91	Infringement opinion from F&N: would not infringe.
3-15-91	Cassingham instructed to proceed with patentability search.

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(Filter Technology) CIGARETTE FILTER PAPER WEB PRODUCT

N. Gautam, R. Rogers, and D. Simpson Cigarette Technology

Sheet of paper that combines cut cellulose acetate and/or partially acetylated cellulose and/or cellulose plus a new material--partially acetylated high surface area cellulose.

Related to PM 1424, 1503, D568, D584, D678

### Glenn/F&N/Schoneman

12-13-90 Patent review meeting: file. 1-7-91 Disclosure file opened.

1-28-91 Disclosure to F&N for application preparation.

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### PM 1528 (D732/757

(Tomorrow) BANDED CIGARETTE PAPER TO CONTROL BURN RATE AND METHOD OF MAKING

S. D. Baldwin, N. Gautam, K. Houghton, B. Keen, R. Ritt, J. Ryder, W. H. Steven, H. W. Vogt Cigarette Technology

Preformed cigarette paper to which cellulose without a binder such as carboxymethyl cellulose or hydroxypropyl cellulose is applied in patterns (bands). This technique and these materials would require no binder to cause adherence to the paper. Mass burn rate is effectively controlled with a relatively easy application technique.

Related to PM 1479

### Glenn/F&N/Hubbard

12-13-90 Patent review meeting: file.

1-17-91 Disclosure to F&N for application preparation.1-25-91 Assigned to Hubbard--novelty search initiated.

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### PM 1529 (D733)

(Beta) PROCESS FOR PRODUCING A HEATER WITH DISCRETE HEATING ZONES ON PAPER

S. C. Deevi and D. Kellogg Physical Research

Object is to product heaters with discrete heating zones which can withstand about 600 to 900 degrees C, and operate with low voltages and high densities.

See also D687

### Glenn/F&N/Matthews

12-13-90	Patent review meeting: file.
1-17-91	Disclosure to F&N for application preparation: HIGH PRIORITY
2-6-91	Meeting with Matthews/Deevi.
3-4-91	D687 to F&N for possible inclusion in this case.

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### PM 1530 (D734)

(Paper Technology) PREPARATION OF NOVEL COMPOSITIONS FOR USE AS FILLER FOR CIGARETTE PAPERS

G. H. Bokelman, J. Fournier, A. Kallianos, J. Paine, K. Podraza, J. Seeman

Preparation of novel compositions for use as filler for cigarette papers, which comprise calcium carbonate, coprecipitated with magnesium hydroxide, magnesium carbonates and/or basic magnesium carbonates. Since all of the products of the reaction are insoluble, only minimal washing of the precipitate is required afterward, thereby minimizing processing costs and solubility losses.

### Glenn/F&N/Nix

12-13-90	Patent review meeting: file.
1-17-91	Disclosure to F&N for application preparation.
2-6-91	Outside search initiated by Nix.

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# 202011112

### PM 1531 (D735)

### AN ALGORITHM FOR IMAGE INSPECTION AND DEFECT DIAGNOSIS

D. M. Ennis

**Product Evaulation** 

### Glenn/F&N/Jackson

12-13-90	Patent review meeting: file.
1-17-91	Disclosure to F&N for application preparation.
2-6-91	Meeting with Jackson/Ennis; Danny to prepare flow chart.
3-6-91	Chart sent to Jackson.

### PM 1532 (D737)

(Project Tomorrow) PRODUCTION OF A BANDED PAPER

### E. B. Sanders

Alternate approach to the production of a banded paper to control ignition propensity. Uses a porous paper which is first treated on one side with a film former, after which the treated side is affixed to the normal web of cigarette paper. By using a porous paper which is made non-porous on one side by coating it with a film former, the untreated side remains porous which will allow rapid cigarette formation using standard adhesives.

### Glenn/F&N/Panichi

12-13-90	Patent review meeting: file.
1-17-91	Disclosure to F&N for application preparation.
1-23-91	Assigned to Panichi.
3-19-91	Prior art sent to F&N.

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## E. B. Sanders

PM 1533 (D738)

(Project Tomorrow) PRODUCTION OF A BANDED PAPER

Alternate approach to the production of a banded paper to control ignition propensity. Uses bands of BL sheet, which is known to be a slow burning material that is quite non-porous. Replacing the bands of cellulose with BL sheet should result in a product with improved subjectives.

### Glenn/F&N/Panichi

12-13-90	Patent review meeting: file.
1-17-91	Disclosure to F&N for application preparation.
1-23-91	Assigned to Panichi.
3-19-91	Prior art sent to F&N.

### PM 1534

(D. H. Max) DEVICE FOR HIGH SPEED DELIVERY OF PARTICULATE MATERIAL

C. G. Atwell, M. D. Belcastro, J. F. Budjinski, M. T. Garthaffner Engineering

Object is to increase speed of conveyor assembly and allow unit to run smoother more accurately and with reduced noise level.

See also PM 1563

### Glenn/F&N/Wilson

12-13-90	Patent review meeting: file.
1-7-91	Disclosure file opened-to F&N for application preparation.
1-25-91	Letter from Wilson: waiting for drawings from Atwell.
2-25-91	PM 1520 combined herewith.
3-25-91	1st draft receivedto inventors for review.

### PM 1535 (D743)

### (D. H. Max) ALIGNMENT OF FILTER AND CIGARETTE COMPONENTS

### M. T. Garthaffner and R. Honaker

Engineering

Method and apparatus for alignment of filter components to product charcoal filter cigarettes without combining machine. Keeps the gap between the cigarette and filter components to 5mm or less which is needed to assemble final product; especially when components are short.

### Glenn/F&N/Brook

12-13-90 Patent review meeting: file.

1-17-91 Disclosure to F&N for application preparation.

2-21-91 Meeting with Brook/Garthaffner/Honaker.

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### PM 1536 \*\*\* INACTIVE \*\*\*

(Project Billy) ADJUSTABLE AIR VALVE AND CHARCOAL COLLECTOR ASSEMBLY

### M. T. Garthaffner

Engineering

Can reduce damage to combined filter rods when being pneumatically conveyed by reducing air velocity and filter velocity before reaching the receiver.

### Glenn/F&N

12-13-90 Patent review meeting: file.

2-7-91 Disclosure to F&N for application preparation.

2-12-91 Inactivated--used in production in 1987.

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## PM 1537 (D746)

### (Delta/Sigma) PAPER WEB SLITTER

M. T. Garthaffner Engineering

Allows tipping paper web to be slit cleanly immediately prior to application to cigarette components. This allows precise alignment to cigarette components with a clean edge that will be inserted in smoker's mouth. Thus end product is not visually and orally objectionable.

### Glenn/F&N/Shulman

12-13-90	Patent review meeting: file.
1-17-91	Disclosure to F&N for application preparation.
1-23-91	Assigned to Doreen Shulman-novelty search initiated.
3-7-91	Letter from C. Smith: novelty search report in hand-Panichi considering prior art.

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### PM 1538 (D747)

### METHOD AND APPARATUS FOR PACKAGE INNERFRAME/INFORMATION AREA MODULE

J. J. Fleenor and J. B. Draucker Engineering

For couponing and advertising.

See also PM 1484 and 1484II

### Glenn/F&N/Nix

12-13-90	Patent review meeting: file.
1-17-91	Disclosure to F&N for application preparation.
1-23-91	Patentability search initiated by Nix.
3-1-91	Search results received.

### PM 1539 (D748, D749)

(Project Tomorrow) STRIP APPLICATION

A. L. Collins, B. J. Keen, G. B. Reid, R. R. Ritt, W. H. Stevens, H. W. Vogt Engineering

Allows for placement of cut strips or patches of paper in an alternating pattern onto a continuously moving web of paper, during the manufacture of cigarettes.

### Schardt/F&N/Ingerman/Hintz

12-13-90 Patent review meeting: file.

1-7-91 Disclosure file opened--to F&N for application preparation.

1-30-91 Meeting with Ingerman/Vogt.

PM 1540 (D750, D751, D752)

(Project Tomorrow) SAPPARATUS AND METHOD FOR LAMINATING PATCHES OF A FIRST WEB MATERIAL ONTO A SECOND WEB MATERIAL

A. L. Collins, B. J. Keen, G. B. Reid, R. R. Ritt, W. H. Stevens, H. W. Vogt Engineering

Apparatus and a method for laminating patches to a base web accurately, and as efficiently as possible, are provided. A web of patch material and the base web are advanced together in parallel, and patches are removed from the web of patch material and transferred to the base web. The method and apparatus are useful in producing banded cigarette paper.

### Schardt/F&N/Ingerman/Hintz

12-13-90 Patent review meeting: file.

1-7-91 Disclosure file opened—to F&N for application preparation.

1-30-91 Meeting with Ingerman/Vogt.

2-13-91 1st draft sent to inventors for review.

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(Project Tomorrow) APPARATUS AND METHOD FOR LAMINATING STRIPS OF A FIRST WEB MATERIAL ONTO A SECOND WEB MATERIAL

A. L. Collins, B. J. Keen, G. B. Reid, R. R. Ritt, W. H. Stevens, H. W. Vogt Engineering

Apparatus and a method for laminating strips of a first web material onto a second web material are provided. Strips of the first web material are carried across the second web material by single or multiple loom-type shuttles from single or multiple reels.

### Schardt/F&N/Ingerman/Hintz

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12-13-90	Patent review meeting: file.
1-7-91	Disclosure file opened to F&N for application preparation.
1-30-91	Meeting with Ingerman/Vogt.
2-12-91	First draft sent to inventors for review.

### PM 1542

(Project Tomorrow) APPLICATION OF PARTICULATE MATTER TO CIGARETTE PAPER

A. L. Collins, B. J. Keen, G. B. Reid, R. R. Ritt, W. H. Stevens, H. W. Vogt Engineering

Paper dusting of cigarette paper as paper runs thru powder box on maker.

### Schardt/F&N/Radulescu

12-13-90 Patent review meeting: file.
1-7-91 Disclosure file opened--to F&N for application preparation.
1-18-91 Assigned to Radulescu.

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(Project Tomorrow) CAPILLARY ROLLER SLURRY APPLICATION METHOD

B. J. Keen, R. R. Ritt, W. H. Stevens, and H. W. Vogt Engineering

Simple application method of putting a material on a moving web.

### Schardt/F&N/Krasnow

12-13-90 Patent review meeting: file.

1-7-91 Disclosure file opened--to F&N for application preparation.

1-18-91 Assigned to Krasnow.

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### PM 1544

(Beta) REINFORCED TUBULAR BLADE HEATER FOR FLAVOR GENERATING ARTICLE

B. J. Keen, G. S. Fleischhauer Engineering

Relates to electric heating elements arranged in a tubular array used to heat a flavor generating medium in a flavor generating article.

### Glenn/F&N/Ingerman

12-13-90 Patent review meeting: file.

1-30-91 Meeting with Ingerman/inventors.

4-3-91 1st draft received--to inventors for review.

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PM 1545 (no D #)

### (Beta) ELECTRONIC CIRCUIT TO CONTROL OPERATION OF BETA ARTICLE

C. T. Higgins and H. McCafferty Physical Research

### Schardt/F&N/Starer

1-11-91 Disclosure received--pursue without committee review per Cliff Lilly.

1-14-91 To F&N for application preparation.

1-18-91 Assigned to Starer.

### PM 1546 (D688)

### (Beta) CARBONACEOUS ELECTRICAL RESISTANCE HEATER

S. C. Deevi, Leo Lanzl, J. F. Whidby Physical Research

### Schardt/F&N/deBlasi

1-11-91 Pursue without committee re-evaluation per Cliff Lilly.

1-14-91 To F&N for application preparation.

1-18-91 Assigned to deBlasi.

### PM 1547 (D740)

(Project B&D) SINGLE STRUCTURE REFILLABLE PACK

D. H. Evers and W. C. Harris Engineering

### Schardt/F&N/Hersh

2-22-91 Disclosure file opened--to F&N for application preparation.

3-7-91 Drawings and sample requested from Evers.

3-15-91 Drawings and sample sent to F&N.

### PM 1548 (D762)

### (Beta) ELECTRIC SMOKING ARTICLE

C. T. Higgins and W. R. Raymond Physical Research

### Glenn/F&N/Farber

2-28-91

Disclosure to F&N for application preparation.

3-7-91

Assigned to Farber.

### PM 1549 (D763)

(Beta) DESIGN CONCEPT FOR HEATER/AEROSOL GENERATING SYSTEM

W. G. Houck

Physical Research

### Glenn/F&N/Nix

2-28-91

Disclosure to F&N for application preparation.

3-11-91

Assigned to Nix.

### PM 1550 (D764):

(Beta) ELECTRIC SMOKING ARTICLE

M. E. Counts

Physical Research

### Glenn/F&N/Farber

2-28-91

Disclosure to F&N for application preparation.

3-7-91

Assigned to Farber.

### PM 1551 (D765)

(Beta/Cast Sheet) APPLICATION OF KONJAC FLOUR AS A BINDER TO PRODUCE A FLEXIBLE TOBACCO SHEET

T. Majewski, H. Stahl, S. E. Wrenn Physical Research

### Glenn/F&N/Storella

2-28-91 Disclosure to F&N for application preparation.

3-8-91 Assigned to Storella; data base search results received for consideration.

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### PM 1552 (D766)

(Tomorrow-Related) DOUBLE WRAPPED CIGARETTE ROD WITH EMBOSSED INNER WRAP

R. W. Newsome

Cigarette Technology

Related to D377 and D378

### Schardt/F&N/Gross

2-22-91 Disclosure file opened—to F&N for application preparation.

3-5-91 Assigned to Gross for consideration of patentability.

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### PM 1553 (D770)

MULTIPURPOSE VOLUMETRIC APPARATUS FOR SYNTHETIC AND KINETIC INVESTIGATIONS

R. Augustine (Seton Hall)

Schardt/Depaoli/Giancola

2-22-91 Disclosure file opened--to Depaoli for application preparation.

3-6-91 Giancola instituting patentability search.

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### PM 1554 (D771)

\*\*\* COMBINED \*\*\*

### (Beta) MECHANISM TO PRODUCE AEROSOLS FROM LIQUIDS

M. Sprinkel

Physical Research

### Glenn/F&N/Storella

2-28-91 Disclosure to F&N for application preparation.

3-8-91 Assigned to Storella for consideration along with PM 1517.

4-9-91 Combined with PM 1517.

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### PM 1555 (D773).

### (Beta) CONTROL OF DELIVERY OF POWER TO LOAD IN BETA ARTICLE

C. Higgins and H. McCafferty Physical Research

### Glenn/F&N/Nix

2-28-91 Disclosure to F&N for application preparation.

3-11-91 Additional information requested from inventors.

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### PM 1556 (D776)

### MICRO HIGH PRESSURE FLOW REACTOR

R. Augustine (Seton Hall)

### Schardt/Depaoli/Giancola

2-22-91 Disclosure file opened--to Depaoli for application preparation.

3-7-91 Additional information requested--patentability evaluation initiated by Depaoli.

4-10-91 Search results received.

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### PM 1557 (D777)

### CATALYTIC OXIDATION

### R. Augustine (Seton Hall)

### Schardt/Depaoli

2-22-91

Disclosure file opened--to Depaoli for application preparation.

3-7-91

Additional information requested.

### PM 1558 (D784)

### LID LOCK FEATURE FOR RADIUSED CORNER PACKAGES

J. Fleenor and D. Wilder

Engineering

See also PM 1562

### Glenn/F&N/Jackson

2-28-91

Disclosure to F&N for consideration.

3-8-91

Assigned to Jackson for consideration along with PM 1562.

PM 1559 (D785)

### CIGARETTE HOPPER VANE JAM PREVENTION DEVICE

### R. Brinker

Engineering

### Schardt/F&N/Cassingham

2-22-91

Disclosure file opened--to F&N for application preparation.

3-7-91

Letter from C. Smith: supplemental illustrations needed in order to institute novelty search.

**3-13-91** 

Additional drawings requested from Brinker.

3-20-91

Drawings and photos sent to C. Smith.

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### PM 1560 (D786)

### PZ EQUILIBRIUM CONTROL

J. Budjinski, S. Campbell, and T. Ward Engineering

### Schardt/F&N/Brook

2-22-91

Disclosure file opened--to F&N for application preparation.

3-6-91

Letter from C. Smith requesting clarification of invention.

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### PM 1561 (D788)

ROTARY SIDE SEAM NOZZEL ASSEMBLY

M. Garthaffner

Engineering

### Schardt/F&N/Brook

2-22-91

Disclosure file opened--to F&N for application preparation.

3-6-91

F&N conducting novelty search.

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### PM 1562 (D789)

RETENTION CUTS ON THE SIDE INNERFRAME TO FACILITATE CONSISTENT LID CLOSURE

W. David and D. Wilder

Engineering

See also PM 1558

### Glenn/F&N/Jackson

2-28-91

Disclosure to F&N for consideration.

3-8-91

Assigned to Jackson for consideration along with PM 1558; patentability search being done.

### PM 1563 (D793).

### (D. H. Max) VACUUM ASSIST GARNITURE WITH POROUS TYPE TUBE

J. Budjinski, G. Atwell, and M. Garthaffner Engineering

See also PM 1534

### Glenn/F&N/Wilson

2-28-91 Disclosure to F&N for application preparation.

3-7-91 Additional drawings requested.

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### PM 1564 (D795)

(Beta) PROCESS FOR THE MANUFACTURE OF POROUS CARBON SHEETS

S. C. Deevi Physical Research

### Glenn/F&N/deBlasi

2-21-91 Disclosure file opened--proceed with filing.
3-12-91 Disclosure to F&N for application preparation.

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### PM 1565 (D783)

(Project Ace) TAX STAMPABLE HALF CARTON

D. H. Evers Engineering

See also PM 1566, 1567, 1568

### Schardt/F&N/Hersh

2-21-91	Disclosure file openedto F&N for application preparation.
3-5-91	Additional info requested from inventor.
3-25-91	Letter from Hersh re drawings for disclosuresent to Evers for clarification.
3-28-91	Notified F&N to rate HIGH PRIORITY.
4-12-91	Evers' comments on drawings sent to Hersh.

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### PM 1566 (D791)

### (Project Ace) ONE PIECE BLANK FOR TWO HALF CARTONS

E. H. Evers, R. E. Talley, W. P. Taylor Engineering

See also PM 1565, 1567, 1568

### Schardt/F&N

2-21-91 Disclosure file opened--to F&N for application preparation.

3-5-91 Additional info requested from inventors. 3-28-91 Notified F&N to rate *HIGH PRIORITY*.

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### PM 1567 (D792)

(Project Ace) ONE PIECE BLANK THAT FORMS TWO HALF CARTONS

R. E. Talley Engineering

See also PM 1565, 1566, 1568

### Schardt/F&N

2-21-91 Disclosure file opened--to F&N for application preparation.

3-5-91 Additional info requested from inventor.

3-28-91 Notified F&N to rate HIGH PRIORITY.

### PM 1568 (D794)

(Project Ace) TWO HALF CARTONS JOINED BY GLUE AT TOP FOR PURPOSE OF TAX STAMPING

R. E. Talley and E. Wooldridge Engineering

See also PM 1565, 1566, 1567

### Schardt/F&N

2-21-91

Disclosure file opened-to F&N for application preparation.

3-5-91

Additional info requested from inventors.

3-28-91

Notified F&N to rate HIGH PRIORITY.

### PM 1569

(Beta) CERAMIC HEATER

S. C. Deevi

Physical Research

### Glenn/F&N

2-14-91

Patent review meeting: review for inclusion in other Beta cases or file separately.

3-4-91

Disclosure to F&N for application preparation.

### PM 1570

(Bold/Tomorrow) REDUCING PUFF COUNT OF CIGARETTES BY CHANGING FILLER LEVEL OF **CIGARETTE PAPERS** 

C. W. Arterbery, W. A. Geiszler, B. Goodman

Cigarette Technology

### Glenn/F&N/Rhoads

3-14-91

Disclosure to F&N for application preparation--HIGH PRIORITY-MUST BE FILED BY APRIL 4.

3-21-91

Meeting with Rhoads/inventors--additional information provided.

### (Bold/Tomorrow) CIGARETTE WITH SPECIAL PAPER TO CONTROL PUFF COUNT

C. W. Arterbery, W. A. Geiszler, B. Goodman Cigarette Technology

### Glenn/F&N/Rhoads

3-14-91

Disclosure to F&N for application preparation--HIGH PRIORITY--MUST BE FILED BY APRIL 4.

3-21-91

Meeting with Rhoads/inventors--additional information provided.

PM 1572 (D778)

NOVEL PYRAZINEETHANOL COMPOUND

G. Chan and Y. Houminer Chemical Research

Schardt/Depaoli

3-14-91

Patent review meeting: file.

3-26-91

Disclosure to Depaoli for application preparation.

PM 1573 (D781)

PROCESS FOR CLEANING CELLULON

S. Baldwin

Cigarette Technology

Glenn/F&N

3-14-91

Patent review meeting: file.

4-8-91

Disclosure to F&N for application preparation.

### PM 1574 (D796)

USE OF LIQUID CARBON DIOXIDE AS SOLVENT MEDIUM AND CARRIER TO APPLY ADDITIVES TO TOBACCO

R. Southwick

Chemical Research

### Glenn/F&N

3-14-91

Patent review meeting: file - broaden to paper and filter.

4-8-91

Disclosure to F&N for application preparation.

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### PM 1575 (D798)

(Ambrosia) VANILLIN-RELEASE COMPOUND

R. Southwick

Chemical Research

See also PM 1418, 1430

### Schardt/Depaoli/Giancola

3-14-91

Patent review meeting: file.

3-26-91

Disclosure to Depaoli for application preparation.

4-10-91

Draft claims sent to Southwick for review.

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### PM 1576 (D799)

FILTER FOR SELECTIVE REMOVAL OF HIGHER MOLECULAR WEIGHT COMPONENTS OF MAINSTREAM SMOKE

R. W. Hale

Flavor Development

Glenn/F&N

3-14-91

Patent review meeting: file.

4-8-91

Disclosure to F&N for application preparation.

### PM 1577 (D800)

(Beta) ELECTRIC HEATER-PLUG ASSEMBLY

G. S. Fleischhauer

Physical Research

Glenn/F&N

3-14-91 Patent review meeting: file.

4-8-91 Disclosure to F&N for application preparation.

PM 1578 (D801)

(Beta) SMOKING ARTICLE COMPRISING MULTITUDE OF SMALL NEEDLE-LIKE ELECTRICAL HEATERS

G. S. Fleischhauer Physical Research

Glenn/F&N

3-14-91 Patent review meeting: file.

4-8-91 Disclosure to F&N for application preparation.

PM 1579 (D802)

(Sigma/Delta) MANUFACTURE OF DELTA/SIGMA HEAT SOURCES WITH MICROWAVE/RF HEATING TECHNIQUES

S. C. Deevi, D. B. Losee

Physical Research

Possible CIP to PM 1319, 1389, 1322, 1336, 1345, 1353

Schardt/F&N

3-14-91 Patent review meeting: file.

3-26-91 Disclosure to F&N for application preparation.

4-3-91 Letter from C. Smith: disclosure being reviewed in light of PM 1319, 1322, 1389, 1336, 1345, and

1353.

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### PM 1580 (D803)

### (Sigma/Delta) PASSAGEWAY DESIGNS FOR SIGMA/DELTA HEAT SOURCES

S. C. Deevi, M. R. Hajaligol, D. S. Kellogg, L. Lanzel, D. B. Losee, B. E. Waymack Physical Research

Extrusion designs for use in making Sigma/Delta heat sources.

### Schardt/F&N/Storella

3-14-91 Patent review meeting: file.

3-26-91 Disclosure to F&N for application preparation.

4-3-91 Letter from C. Smith: assigned to Storella who will review in light of existing Sigma/Delta cases.

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### PM 1581 (D804)

FLIP-TOP BOX WITH ATTACHED COUPON

D. H. Evers

Package Engineering

See also PM 1484, 1484II

### Glenn/F&N

3-14-91

Patent review meeting: file.

4-8-91

Disclosure to F&N for application preparation.

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### PM 1582 (D805)

AUTOMATIC BAGGING OF COMPRESSED CUT TOBACCO

John Tomanovits

Engineering

### Glenn/F&N

3-14-91

Patent review meeting: file.

4-8-91

Disclosure to F&N for application preparation.

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### PM 1583 (D806)

(Delta) CIGARETTE TRANSFER DENIAL

M. Belcastro, D. Jones, C. Longest Engineering

### Schardt/F&N/Brook

3-15-91

Patent review meeting: file.

3-26-91

Disclosure to F&N for application preparation.

4-3-91

Assigned to Brook.

PM 1584 (D807)

(Tomorrow/Beta) APPLICATION OF STRIPS OF SLURRY USING A VENTURI SLOT AND A ROTARY AIR VALVE.

E. Cutright, R. Reich, and R. Scott of Jewett and H. Vogt Engineering

### Glenn/F&N

3-14-91

Patent review meeting: file - broaden to include Beta.

4-8-91

Disclosure to F&N for application preparation.

PM 1585 (D808)

(Tomorrow/Beta) APPLICATION OF STRIPS OF SLURRY VIA A MOVING BELT ANGLED TO THE DIRECTION OF FLOW OF A PAPER WEB

E. Cutright and R. Scott of Jewett and H. Vogt Engineering

### Glenn/F&N

3-14-91

Patent review meeting: file - broaden to include Beta.

4-8-91

Disclosure to F&N for application preparation.

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### PM 1586 (D809)

(Tomorrow/Beta) DISPLACEMENT TRANSFER OF SLURRY TO A MOVING PAPER WEB

E. Cutright and R. Scott of Jewett and H. Vogt Engineering

Glenn/F&N

3-14-91

Patent review meeting: file - broaden to include Beta.

4-8-91

Disclosure to F&N for application preparation.

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### PM 1587 (D810)

(Tomorrow) VACUUM TRANSFER OF SLURRY TO A MOVING PAPER WEB

E. Cutright and R. Scott of Jewett and H. Vogt Engineering

### Schardt/F&N/Reedy

3-14-91

Patent review meeting: file.

3-26-91

Disclosure to F&N for application preparation.

4-3-91

Assigned to Reedy; novelty search instituted.

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### PM 1588 (D787).

(Cartier C-20) FOLD IN LID LOCK

X. Pham

Package Engineering

Glenn/F&N

3-14-91

Patent review meeting: file.

4-8-91

Disclosure to F&N for application preparation.

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(Project Ace) SEPARABLE OR DIVIDABLE LABEL CONTAINING UNIVERSAL PRICE CODE

J. A. DeBlasio and R. E. Talley Engineering

Allows single unit U.P.C. on outside of multiple units, which is rendered void when the single unit is separated into its individual units.

### Schardt/F&N

3-26-91

Disclosure received--to F&N for application preparation--HIGH PRIORITY.

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### PM 1590

(Project Ace) TWO SEPARATE CARTONS COMBINED AS A SINGLE UNIT BY ADHESIVE/CARRIER MEANS

J. M. Adams, C. N. Chance, J. A. DeBlasio, D. H. Evers, W. C. Harris, M. A. Kirby, R. W. Newsome, R. E. Talley Engineering

Maintains single 2x5 configuration for eas of production and tax stamping, provides consumer with easy means of separation into single 1x5 units for purchase.

### Schardt/F&N

3-28-91

Disclosure received--to F&N for application preparation--HIGH PRIORITY.

(Project Ace) 5 PACK CARTON UNIT THAT HAS A TUCKED FLAP FOR EASE OF OPENING

J. M. Adams, C. N. Chance, J. A. DeBlasio, D. H. Evers, W. C. Harris, M. A. Kirby, R. W. Newsome, R. E. Talley Engineering

Allows for a tucked flap to be formed by forming a lap seam on the side of ther carton.

### Schardt/F&N

3-28-91

Disclosure received--to F&N for application preparation--HIGH PRIORITY.

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### PM 1592

(Project Ace) SINGLE CARTON BLANK HOLDING 10 PACKS IN TWO 1X5 ROWS WHICH CAN BE SEPARATED INTO TWO SEPARATE 1X5 CARTONS

J. M. Adams, C. N. Chance, J. A. DeBlasio, D. H. Evers, W. C. Harris, M. A. Kirby, R. W. Newsome, R. E. Talley Engineering

Maintains existing 2x5 configuration to minimize machine modifications for processing at point of manufacture and at distribution tax stamping while still being able to be separated into two 1x5 cartons for distribution or by customer at point of sale.

### Schardt/F&N

3-28-91

Disclosure received--to F&N for application preparation--HIGH PRIORITY.

(Project Ace) SINGLE CARTON BLANK HOLDING 10 PACKS IN TWO 1X5 ROWS WHICH CAN BE SEPARATED INTO TWO SEPARATE 1X5 CARTONS

J. M. Adams, C. N. Chance, J. A. DeBlasio, D. H. Evers, W. C. Harris, M. A. Kirby, R. W. Newsome, R. E. Talley, Engineering

Maintains existing 2x5 configuration to minimize machine modifications for processing at point of manufacturing and at distribution tax stamping while still being able to be separated into two 1x5 cartons for distribution or by customer at point of sale.

### Schardt/F&N

3-28-91

Disclosure received--to F&N for application preparation--HIGH PRIORITY.

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### PM 1594

(Project Ace) DUAL CARTON

J. M. Adams, C. N. Chance, J. A. DeBlasio, D. H. Evers, W. C. Harris, M. A. Kirby, R. W. Newsome, R. E. Talley, Engineering

Allows optional method of adhering two 1x5 cartons together using glue.

### Schardt/F&N

3-28-91

Disclosure received--to F&N for application preparation--HIGH PRIORITY.

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(Project Ace) TWO 1X5 CARTONS JOINED AS A SINGLE UNIT SUITABLE FOR TAX STAMPING AND SEPARATED TO PERMIT SALE AS TWO SINGLE 1X5 CARTONS

J. M. Adams, C. N. Chance, J. A. DeBlasio, D. H. Evers, W. C. Harris, M. A. Kirby, R. W. Newsome, R. E. Talley Engineering

Maintains single 2x5 configuration through manufacturing and tax stamping with a means of separation by the consumer into 2 separate 1x5 cartons.

### Schardt/F&N

3-28-91

Disclosure received--to F&N for application preparation--HIGH PRIORITY.

### PM 1596

### CIGARETTE AND WRAPPER WITH CONTROLLED PUFF COUNT

S. D. Baldwin, R. W. Dwyer, B. L. Floyd, D. J. Newman, R. M. Rogers, and E. B. Sanders Cigarette Technology

### Glenn/F&N/Miraglia

Disclosure to F&N for application preparation--HIGH PRIORITY. 2-12-91

4-3-91 Approved by Shook, Hardy.

4-7-91 Revised draft received.